



2014 Annual Report City of Longmont Mosquito Control Program

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On the Cover:

This photo captured by CBS Denver on June 3rd reminds us of the peak runoff and flooding that hit parts of the Poudre River, St. Vrain, and South Platte along the Northern Front Range, in the first half of June 2014. Snow melt runoff which occurred over a short period resulted from warm temperature trends in late May and early June. This caused some areas of Northern Colorado to become flooded again, following the record floods of September 2013. The stagnant pools that flooding left behind created spikes in adult *Culex tarsalis* mosquitoes during mid-July.

Continued rainfall in July created higher than average nuisance mosquito abundance in parts of Northern Colorado. Fortunately, *Culex spp.* mosquito abundance was lower than observed in 2013 in many areas of Northern Colorado. West Nile virus activity in 2014 was markedly higher in Weld County, but overall risks levels remained below action thresholds in many communities in Boulder and Larimer Counties. Increased activity associated with West Nile virus in Weld County was likely a result of increased agricultural irrigation and afternoon rainfall when compared to the 2012 and 2013 seasons.

**City of Longmont
Mosquito Management Operations**

Annual Report For 2014

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Program Objectives

The City of Longmont completed its 12th year of cost effective biorational Integrated Mosquito Management in 2014. The primary objective of the City of Longmont Mosquito Management Program is to employ trained field biologists to suppress the development of larval mosquitoes in the aquatic habitats. CMC prioritizes, at minimum 95% of resource allocation on larval control efforts. Surveillance monitoring of adult mosquito populations is performed to monitor both the vector abundance and West Nile virus infection levels in the City of Longmont. Adult control of mosquitoes, via adulticiding materials, is determined by mosquito surveillance data collected from sixteen mosquito traps set weekly within the city. This goal enables a reduction in both the overall mosquito populations and the threat of mosquito borne disease transmission at the least possible cost, while minimizing the impact on the people and natural environment.

CMC maintains its commitment to offer environmentally sensitive and technologically advanced Integrated Mosquito Management programs to its customers and community residents. CMC works diligently to maintain the cooperative efforts for mosquito control and epizootic response management between the City of Longmont, Boulder County Public Health, and surrounding local municipalities. The value of this cooperative program and its underlying data sharing and communications in the interest of public health cannot be over-emphasized.

CMC Objectives

Colorado Mosquito Control is a large-scale contractor specializing in complete Integrated Mosquito Management services. CMC utilizes an aggressive preemptive Integrated Pest Management (IPM) approach to control mosquito populations within contracted areas. CMC currently has programs across the state of Colorado, providing services for homeowners associations, incorporated cities and towns, Native American reservations, and encephalitis surveillance monitoring programs for county health departments. CMC values the opportunity to work closely with contracted communities to continue to offer high quality programs during tougher economic times.

Colorado Mosquito Control (CMC) as the contractor for the City of Longmont will continue to use proven scientific Integrated Pest Management (IPM) methods of survey, inspection, diagnosis, biological/biochemical controls, and limited low-toxicity pesticide applications to professionally accomplish the program objectives. CMC employs trained field and surveillance technicians who understand constantly changing mosquito populations. This enables a quick response to variations in environmental factors. All of the methods and materials used have been reviewed and registered by the U.S. EPA, the Centers for Disease Control, the Colorado Department of Agriculture and the American Mosquito Control Association.

2014 Season Perspective

The 2014 summer can best be described as cool and wet. The High Plains Region (South Dakota, North Dakota, Kansas, Nebraska, Montana, Wyoming, and Colorado) went from one precipitation extreme to the other over the course of the summer. Snowpack levels which had not been seen since 2011 and above average rainfall during July and August, which fell across many parts of Colorado, helped ease the severe drought conditions experienced in the 2012 and 2013 seasons. The last remaining area of exceptional drought (D4) in eastern Colorado was downgraded to extreme drought (D3) at the end of the 2014 summer.

The High Plains Region experienced a range in temperatures with a combination of both warm spring-like days and bitterly cold days during January 2014, while precipitation was sparse for most of the region. Drought conditions across the eastern Plains of Colorado continued during the start of the New Year and a mid-month dust storm in the area of Pueblo, Colorado caused several accidents and closed I-25 for a portion of the day. Not all areas of the High Plains Region were lacking snowfall in January. Parts of northern Colorado, as well as pockets in Wyoming and North Dakota received above normal precipitation. By the end of January, Wyoming's statewide snowpack was 113 percent of average and Colorado's statewide snowpack was 94 percent of average, both of which fared much better than snowpack levels recorded at this time in 2013. The average temperature in the month of January 2014 was 29.88°F in Fort Collins, 29.11°F in Loveland, 27.82°F in Johnstown, and 30.11°F in the City of Longmont, as obtained from the Northern Colorado Water Conservancy District (<http://www.northernwater.org>). The total precipitation that occurred in the month of January 2014 was 0.42" in Fort Collins, 0.67" in Loveland, 1.22" in Johnstown and 1.01" in the City of Longmont.

The majority of the High Plains Region recorded temperatures which averaged well below normal with the exception of portions of Colorado and Wyoming during February 2014. Precipitation across much of the High Plains Region was below normal in February, while parts of the Rockies picked up quite a bit of snow. The average temperature in the month of February 2014 was 26.73°F in Fort Collins, 26.64°F in Loveland, 25.11°F in Johnstown, and 27.31°F in the City of Longmont. The total precipitation that occurred in the month of February 2014 was 0.68" in Fort Collins, 0.75" in Loveland, 0.26" in Johnstown and 0.26" in the City of Longmont (<http://www.northernwater.org>).

While parts of the High Plains Region, including North and South Dakota were seeing record lows in temperatures, most of the western side of the Region was unaffected by the cold snaps and ended March near to above normal. The areas of Boulder, Larimer and Weld counties were at normal or averaged 2°F above normal in March 2014. The only areas receiving ample precipitation were northern and central Wyoming and north-central Colorado. Colorado's statewide average snowpack at the end of March was at 114 percent of average. The average temperature in the month of March was 39.28°F in Fort Collins, 40.14°F in Loveland, 39.30°F in Johnstown, and 40.79°F in the City of Longmont. The total precipitation that occurred in the month of March 2014 was 1.48" in Fort Collins, 1.05" in Loveland, 0.96" in Johnstown and 0.86" in the City of Longmont (<http://www.northernwater.org>).

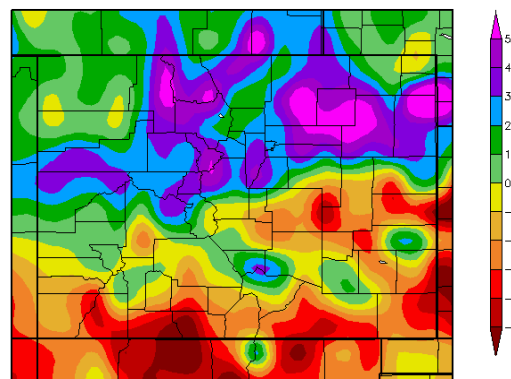
Although parts of the plains were dry, the mountain snowpack continued to be above average in Colorado, Wyoming, and Montana. Cooler temperatures, high winds and scattered showers occurred in areas of Colorado during April 2014. Some crops in the High Plains Region were damaged by the high winds which caused dust storms and uprooted winter wheat in some areas. The average temperature in the month of April was 48.69°F in Fort Collins, 49.29°F in Loveland, 48.55°F in Johnstown, and 49.61°F in the City of Longmont. The total precipitation that occurred in the month of April 2014 was 0.43" in Fort Collins, 0.41" in Loveland, 0.40" in Johnstown and 0.81" in the City of Longmont (<http://www.northernwater.org>).

Average temperatures in the High Plains Region were near normal in May, but above normal precipitation spanned from western to northern Colorado. The total rainfall that fell in May 2014 was 6.14" in Loveland and 4.06" in Fort Collins. The City of Longmont received a total of 2.18" of rain in May. The Town of Johnstown received a total of 4.1" of rainfall. The average temperature in May was 56.97°F in Loveland and 56.26°F in central Fort Collins. The average temperature in Longmont was 56.78°F. The average temperature in Johnstown was 56.05°F in May 2014 (<http://www.northernwater.org>).

Notable weather events occurred on Mother's Day which brought accumulating snowfall to the west and severe weather to the east of the High Plains Region. Snowfall amounts ranged between 1 and 2 feet (30-61 cm) in the mountains of Colorado and Wyoming. Travel delays were numerous as portions of I-25 and I-70 in Colorado closed and portions of I-80 were closed in Wyoming and Nebraska. According to the SNOTEL Data report, Colorado Snow pack was at 210% statewide. Snow pack along the Yampa & White River Basins was at 143% of average, 171% of average along the North Platte, and 340% of average along the South Platte River at the end of May 2014.

Temperatures hovered 2.0°F above or below normal in much of Colorado during June 2014. Only a few locations in southern Colorado made it into the 2.0-4.0°F above normal range. The average temperature in the month of June was 65.6°F in Fort Collins, 66.2°F in Loveland, 65.4°F in Johnstown, and 66.0°F in the City of Longmont. The total rainfall in the month of June was 1.34" in Fort Collins, 0.58" in Loveland, 0.63" in Johnstown and 0.63" in the City of Longmont (<http://www.northernwater.org>).

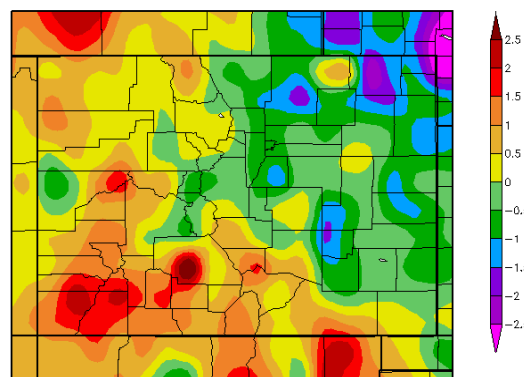
Departure from Normal Precipitation (in)
1/1/2014 - 10/4/2014



Generated 10/5/2014 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Temperature (F)
1/1/2014 - 10/4/2014



Generated 10/5/2014 at HPRCC using provisional data.

Regional Climate Centers

Many areas along the Front Range of northern Colorado were at normal or 2.0°F below normal in July 2014, while central Colorado received above average precipitation compared to normal. The average temperature in the month of July 2014 was 70.9°F in Fort Collins, 71.4°F in Loveland, 70.8°F in Johnstown, and 71.4°F in the City of Longmont. The total rainfall in the month of July 2014 was 3.57" in Fort Collins, 2.44" in Loveland, 2.54" in Johnstown and 2.95" in the City of Longmont (<http://www.northernwater.org>). Precipitation at Denver International Airport was 3.85" compared to a departure of 1.69" during July, which was 178% of the normal for this month.

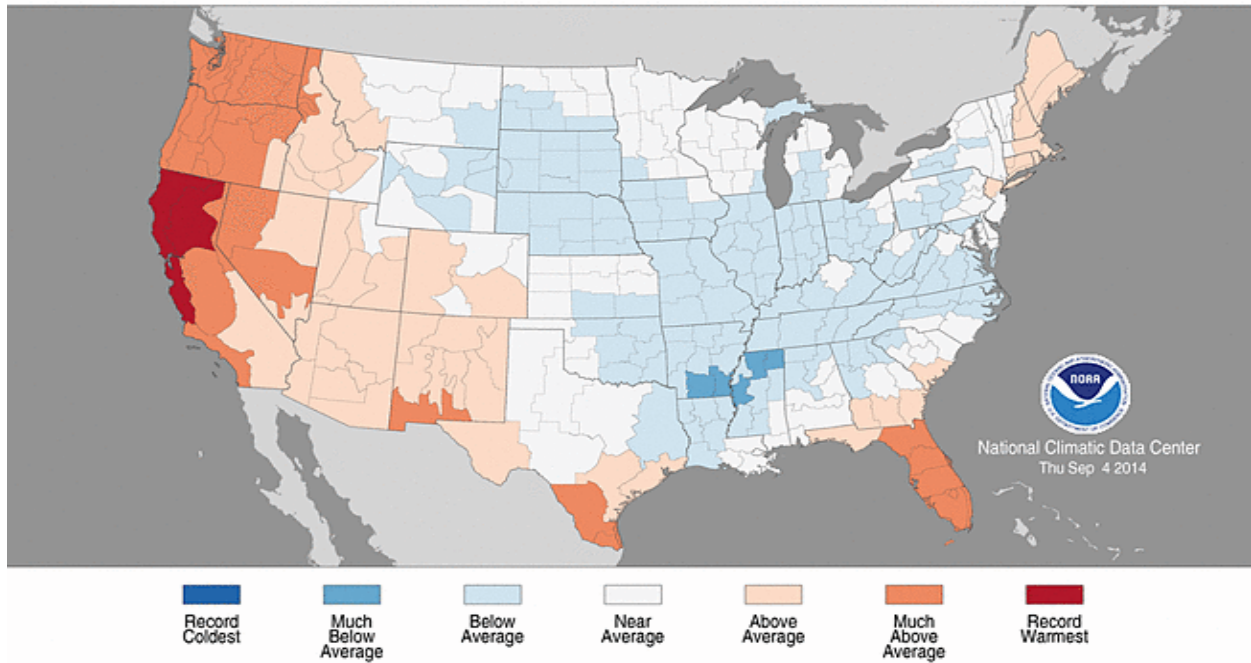
August 2014 was a cool and wet month for most of the High Plains Region. A broad area of below normal temperatures encompassed Colorado. The average temperature in the month of August 2014 was 68.5°F in Fort Collins, 69.0°F in Loveland, 68.0°F in Johnstown, and 68.8°F in the City of Longmont (<http://www.northernwater.org>). The total rainfall that occurred in August was 0.82" in Fort Collins, 1.74" in Loveland, 0.2" in Johnstown and 1.4" in the City of Longmont. Heavy rains led to improvements in the drought levels during August 2014 across the High Plains Region. Precipitation at Denver International Airport was 2.73" compared to a departure of 1.04" during August, which was 162% of the normal for this month. Nuisance reports and larval mosquito production subsided as the days became shorter and nighttime temperatures cooled into September.

Please note: CMC accessed climate summary information contained in this section from the High Plains Regional Climate Center Climate Summary Reports, located online at <http://www.hprcc.unl.edu/publications>.

Divisional Average Temperature Ranks

June–August 2014

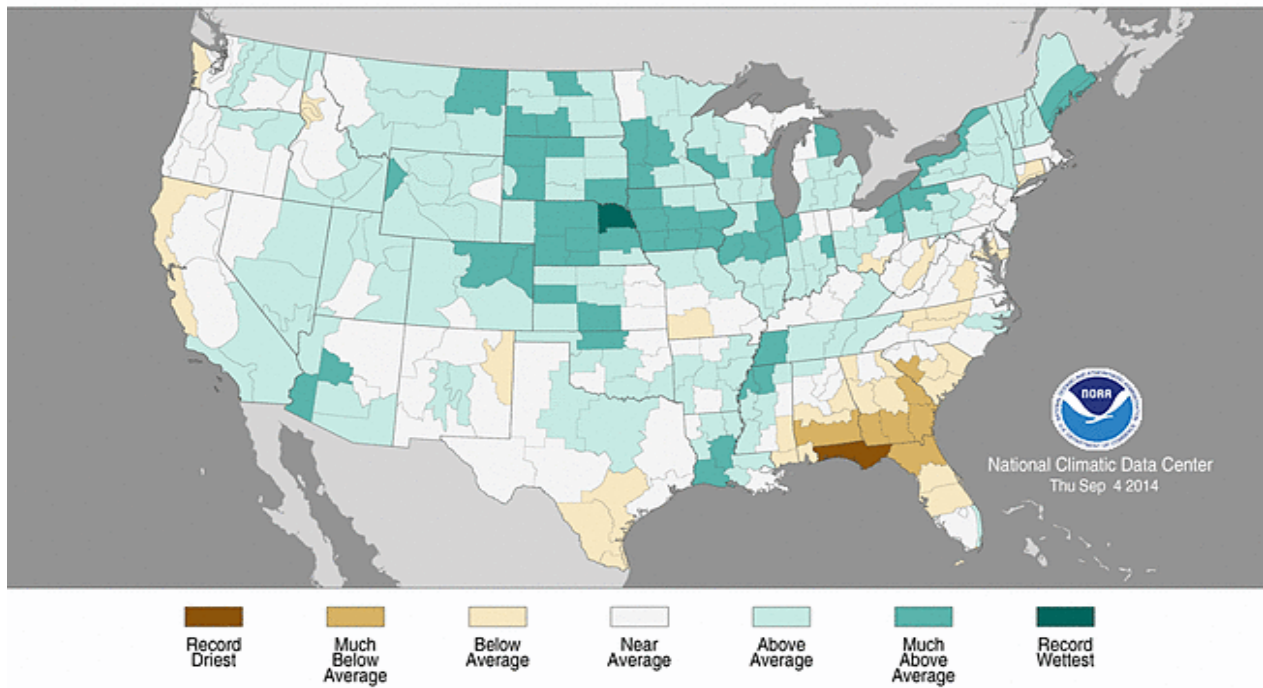
Period: 1895–2014



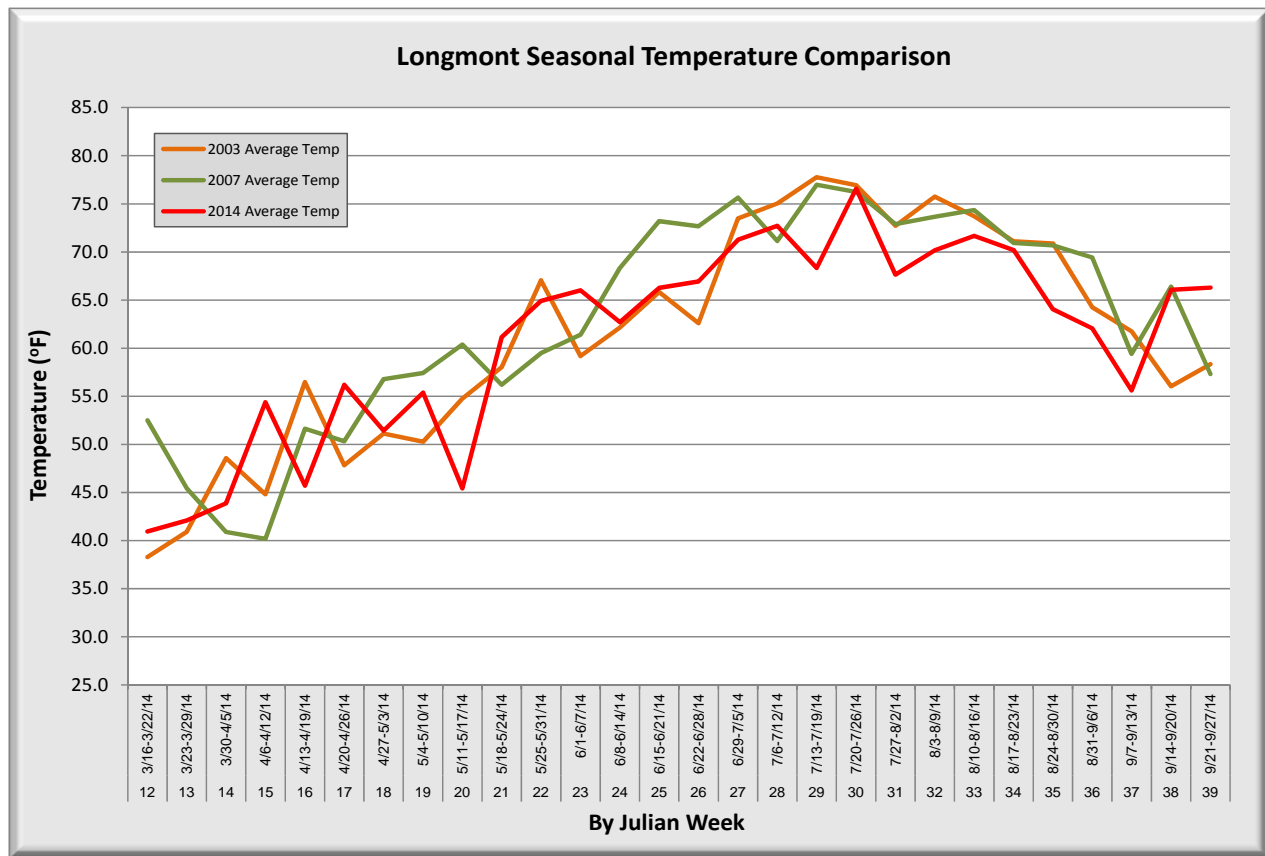
Divisional Precipitation Ranks

June–August 2014

Period: 1895–2014



Source: <http://www.ncdc.noaa.gov>



2014 Average Precipitation Comparison for the City of Longmont				
Week	2014 Precipitation (Inches)	2014 Running Total	Avg of 2003-2013 Seasons	Percentage of Average (2003-2013)
12	0.01	0.17	0.62	0.8%
13	0.09	0.26	0.21	43.9%
14	0.38	0.64	0.22	169.2%
15	0.02	0.65	0.46	3.2%
16	0.44	1.09	1.03	42.8%
17	0.02	1.11	0.51	3.9%
18	0.02	1.13	0.55	3.6%
19	0.38	1.51	0.90	41.5%
20	1.34	2.84	0.48	278.3%
21	0.44	3.28	0.25	173.1%
22	0.07	3.35	0.32	21.7%
23	0.03	3.37	0.84	3.0%
24	0.25	3.62	0.36	68.7%
25	0.03	3.65	0.48	5.3%
26	0.35	4.00	0.28	127.3%
27	0.09	4.09	0.51	17.6%
28	0.48	4.56	0.39	122.0%
29	0.98	5.54	0.11	926.6%
30	0.05	5.58	0.43	10.5%
31	1.40	6.98	0.51	275.5%
32	0.10	7.08	0.21	46.6%
33	0.62	7.70	0.52	118.8%
34	0.29	7.99	0.37	77.3%
35	0.41	8.39	0.41	99.0%
36	0.37	8.76	0.21	171.6%
37	0.44	9.19	0.99	44.0%
38	0.05	9.24	0.24	18.7%
39	0.04	9.28	0.43	9.2%

West Nile Virus Season

West Nile virus (WNV) disease was first identified in Uganda in 1937. Since that time, activity has been documented throughout Africa, Europe, West and Central Asia, and areas of the Middle East. The virus made its first appearance to North America in 1999 when it was documented in New York City. WNV comes from a family of viruses known as Flaviviridae and is closely related to other encephalitis-causing viruses that can have severe effects on both humans and animals, including Western equine encephalitis and St. Louis encephalitis in our region.

Since the introduction of WNV to the United States in New York City in 1999, the virus has made a complete westward expansion to the West Coast. Starting in the Northeastern parts of the United States, the virus steadily spread through the South, the Midwest, the Rocky Mountain region and to the Western States. This extensive distribution is due to the ability of WNV to establish and persist in the wide variety of ecosystems present across the country. WNV has been detected in 65 different mosquito species in the U.S., though it appears that only a few *Culex* species drive epizootic and epidemic transmission (WNV Guidelines CDC 2014). Although West Nile virus has been endemic to the United States since 1999, researchers continue to acquire an understanding for some of the factors which contribute to region specific spikes in vector abundance and human risk. We still do not understand why some humans develop West Nile fever while other infections develop into more serious West Nile encephalitis or West Nile meningitis cases. Additionally, physicians and researchers continue to seek answers to the variable recovery times and occurrence of deaths that result with some infections. WNV has expanded to the point that it can now be found in all 48 contiguous states and has produced two additional, large nationwide epidemics in 2003 and 2012 (WNV Guidelines CDC 2013).

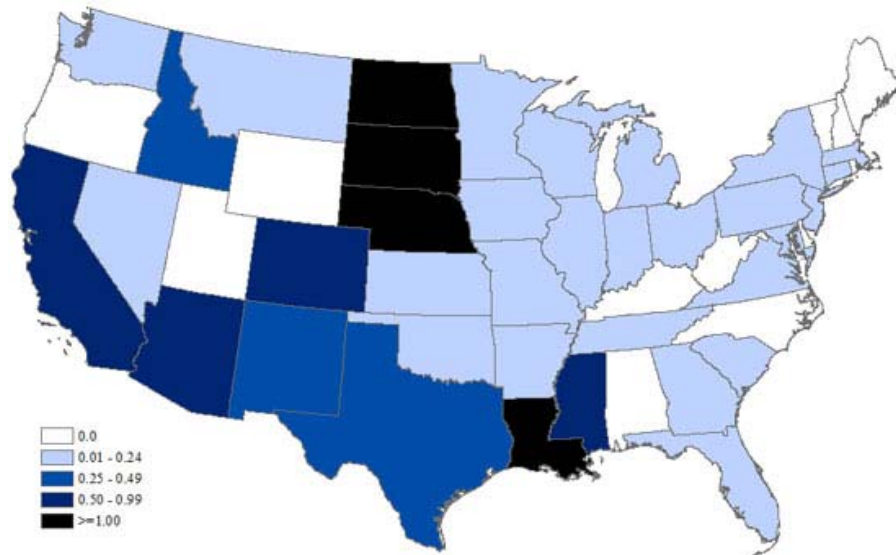
As of September 30th of 2014, a total of 46 states and the District of Columbia have reported West Nile virus infections in people, birds, or mosquitoes. Overall, 1,177 cases of West Nile virus disease in people have been reported to the CDC (www.cdc.gov). Of these human cases, 656 (56%) were classified as neuroinvasive disease (such as meningitis or encephalitis) and 521 (44%) of the total cases reported were classified as non-neuroinvasive disease.

Colorado 2014

There have been 79 documented cases of human WNV infections in Colorado as of October 2nd. Of the 79 human cases reported from Colorado, 10 human cases of WNV were reported from Boulder County, 11 human cases were reported from Larimer County, and 20 cases were reported from Weld County. The majority of cases, to date, were uncomplicated fever (61%); 17 (22%) were meningitis, and 14 (18%) were encephalitis. Two human deaths associated with West Nile virus infection were reported from Denver (1) and Pueblo (1) Counties.

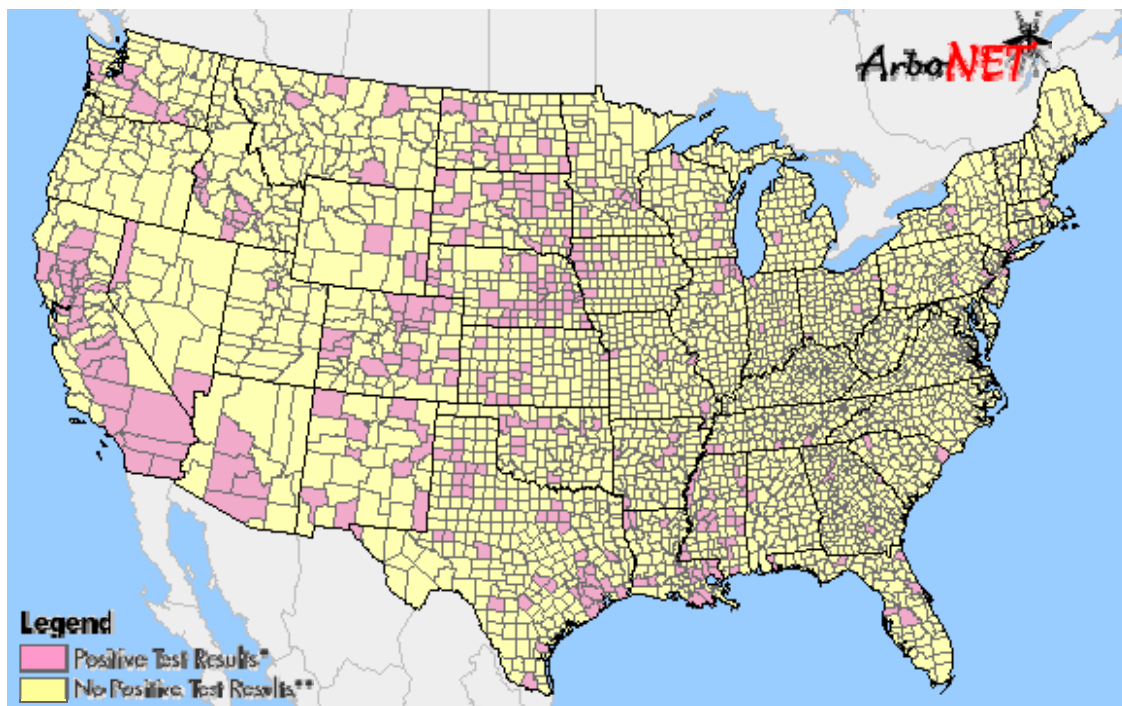
There were 195 confirmed WN positive mosquito pools out of 2,212 pools submitted from Colorado. West Nile virus infected mosquito pools by county location include; Adams (9), Arapahoe (2), Boulder (16), Delta (19), Denver (1), Jefferson (2), Larimer (70), Mesa (6), Pueblo (6), and Weld (64). The first WN+ mosquito samples were collected from Adams, Boulder, Delta, Mesa and Weld Counties during mid-June.

West Nile Virus Neuroinvasive Disease Incidence United States, 2014 (as of September 30, 2014)



Source: http://diseasemaps.usgs.gov/wnv_us_human.html

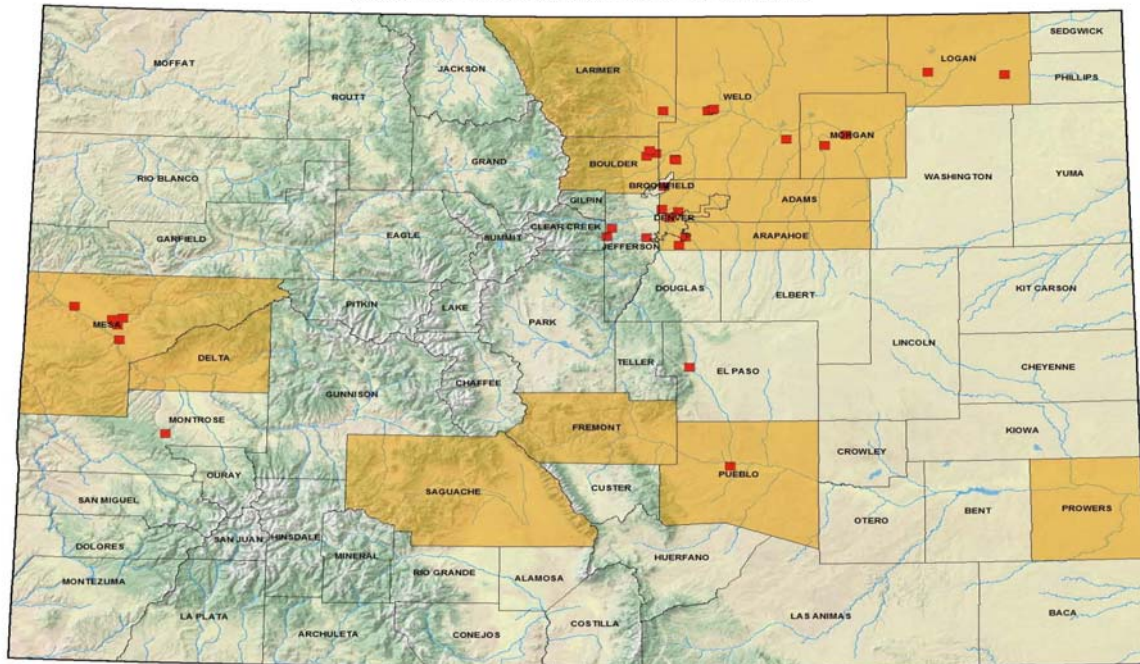
ArboNET County-level Data, US Map



Source: <http://www.cdc.gov/westnile/statsMaps/preliminaryMapsData/incidencestatedate.html>

West Nile Virus Human Surveillance in Colorado

January 1, 2014 through September 19, 2014 [79 Total Cases]



■ WNV Meningitis or Encephalitis (31 Cases)

■ WNV Fever Cases



Clinical Diagnosis				Total Cases	Total Deaths
County of Residence	Fever	Meningitis	Encephalitis		
Adams	1	1	1	3	
Arapahoe	3	1		4	
Boulder	7	3		10	
Broomfield			1	1	
Delta	2			2	
Denver	1	1	1	3	1
El Paso			1	1	
Fremont	1			1	
Jefferson		2	1	3	
Larimer	10	1		11	
Logan	1	1	1	3	
Mesa	2	4	1	7	
Montrose		1		1	
Morgan	1	1	1	3	
Prowers	3			3	
Pueblo	1		1	2	1
Saguache	1			1	
Weld	14	1	5	20	
COLORADO TOTAL	48	17	14	79	2

Source: <https://www.colorado.gov/pacific/cdphe/west-nile-virus-data>

Larval Mosquito Control

Larval mosquito control can be an extremely effective way to manage mosquitoes, thereby reducing the number of potential disease vectors and annoyances associated with biting adults. Years of research and practical experience have shown that the most effective way to control mosquito populations is through an aggressive Integrated Pest Management (IPM) approach. This approach aims at using a variety of concepts, tools, and products to reduce a pest population to a tolerable level.

Pre-season larval control work involved ground truthing GIS maps and remapping areas where new development or flooding had occurred following the 2013 season. CMC began larval site inspections in many areas during the week of April 15th. Hiring of seasonal field technicians began in March and continued into May. CMC's Annual Field Technician Classroom Training Day took place on May 19th with over 50 new and returning field technicians in attendance. Field training by CMC management and veteran employees lasted through May and full time field activities were in force by mid-May 2014.



The City of Longmont larval control service area includes approximately 28 square miles of private and public lands in city limits of Longmont. In 2014 the City of Longmont and Boulder County Public Health agreed to again share the cost of larval control efforts in a portion of unincorporated Weld County. The Weld County larval control service area encompasses 9 square miles of unincorporated lands, east of County Line Road, west of County Road 5, north of County Road 20.5, and south of Ute Hwy. Both entities recognize that this area presents a significant number of larval mosquito habitats, which can produce mosquitoes that will disperse into Longmont city limits and Boulder County. Additionally, Longmont city council approved an enhancement to the program in 2014 which enabled inspections at known problematic larval mosquito habitats on a 5 day cycle, with the intent to minimize multiple generations of mosquitoes from emerging.

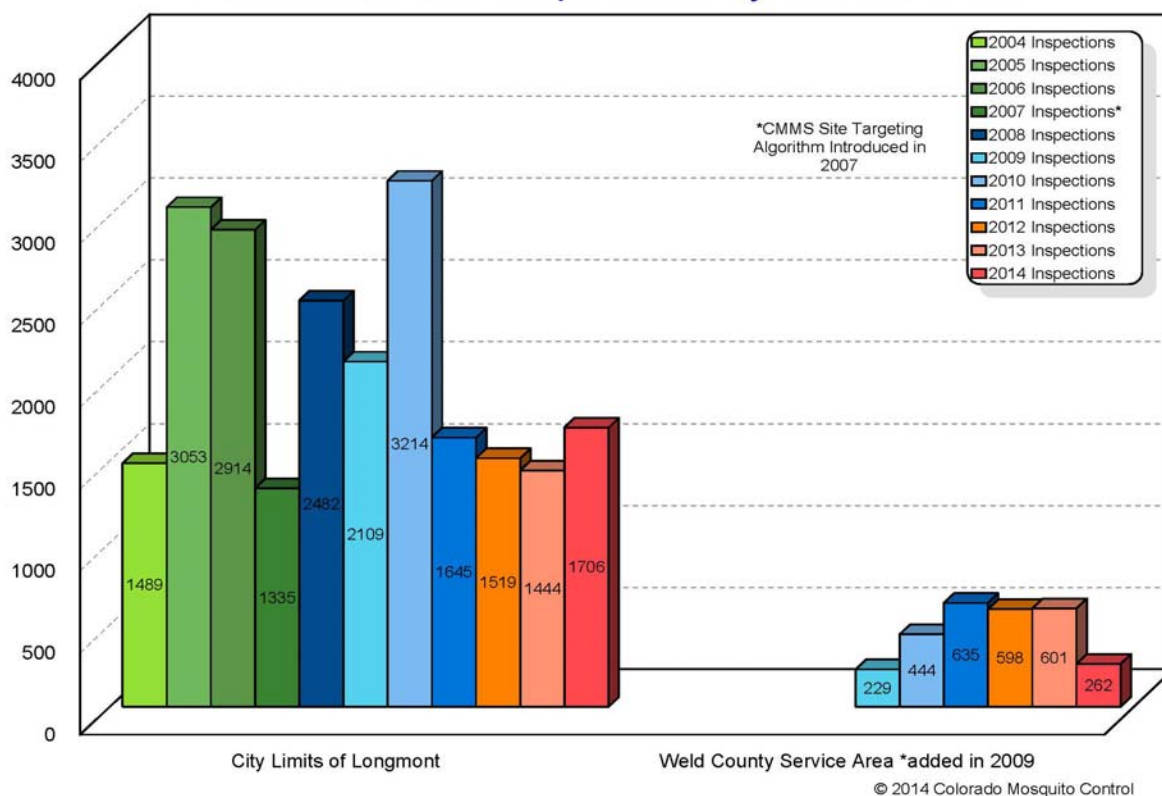


To date, there are 317 active larval mosquito habitats and 93 mandatory sites (weekly or twice/week inspections based on seasonal potential) included in the inspection and larviciding programs for the City of Longmont. There were 2 new larval sites added to the active larval inspection program in 2014. Fifty five sites have been mapped and listed as not active sites due to the low potential to produce mosquito larvae.

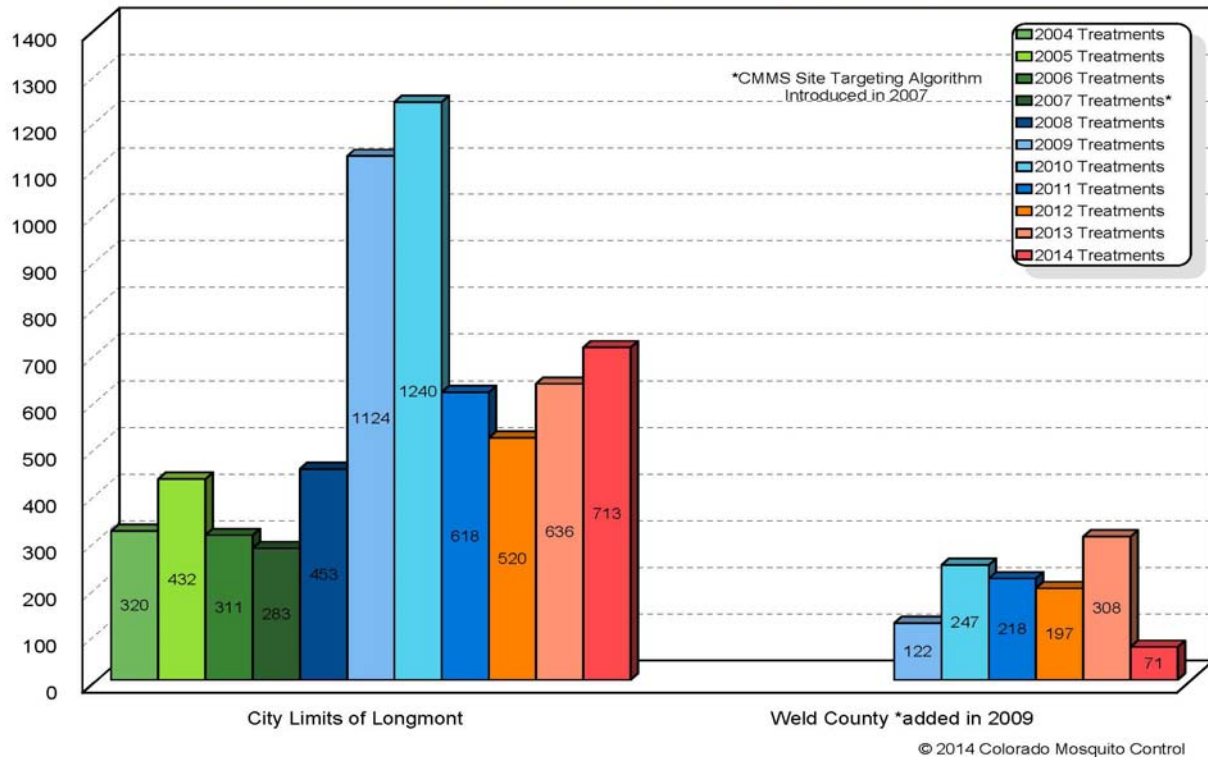
In 2014 Colorado Mosquito Control performed 1,706 larval site inspections, of which 1,549 sites (90.8%) were wet upon inspection and 713 (45.7%) were producing mosquito larvae in the City of Longmont. An estimated 796.3 million mosquito larvae were eliminated before emerging as biting adults via larvicide applications. CMC applied 2,165.6 lbs. of VectoBac (*Bti*), 16.2 lbs. of Vectolex (Bs), 0.5 lbs. of Abate (Temephos), 0.2 lbs. of Altosid, and 23.4 gallons of BVA mineral oil to 301.2 acres of lands in the City of Longmont.

In 2014 Colorado Mosquito Control performed 262 larval site inspections, of which 219 sites (83.6%) were wet upon inspection and 71 (32.0%) were producing mosquito larvae in the Weld County Service Area. An estimated 76.2 million mosquito larvae were eliminated before emerging as biting adults via larvicide applications. CMC applied 174.4 lbs. of VectoBac (*Bti*), 9.3 lbs. of Vectolex (Bs), and 0.1 gallons of BVA mineral oil to 25.5 acres of lands in the Weld County Service Area.

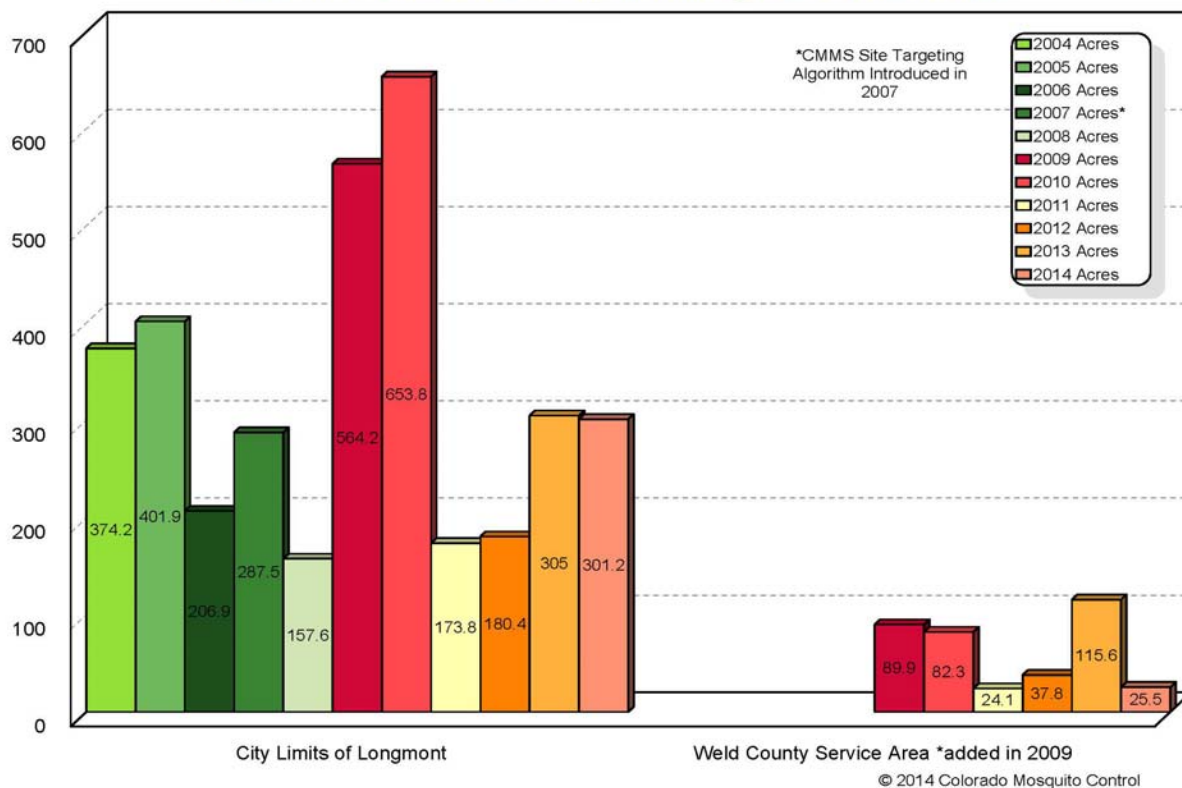
Total Larval Site Inspections by Service Area



Total Larval Site Treatments by Service Area

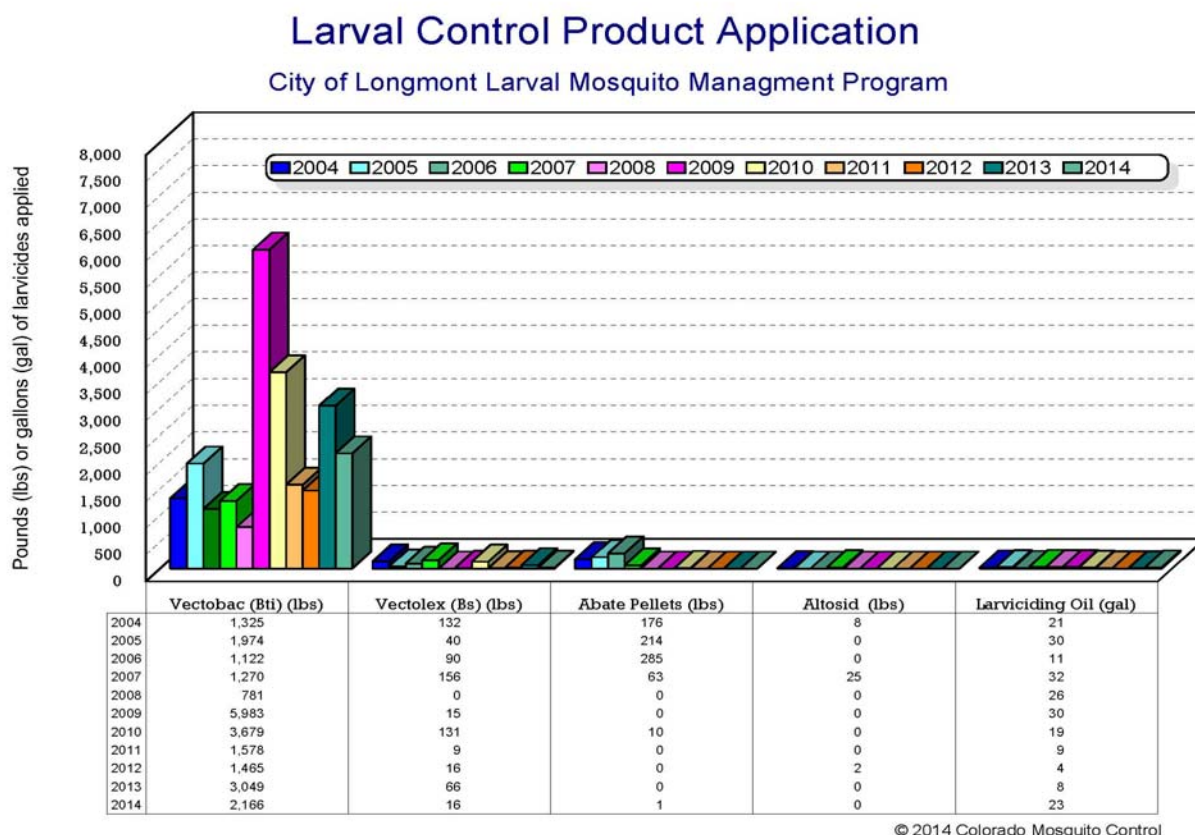


Total Larval Acres Treated by Service Area



Larval mosquito control can be achieved in several ways including biological, biochemical, chemical, and mechanical means. No single larvicide product will work effectively in every habitat where mosquito larvae are found, so a variety of products and methods should be employed. Additionally, although there are a variety of methods for reducing larval populations some may have greater consequence than benefit. Mechanical or habitat modification is a technique which CMC uses, but the area to be modified and the extent to which the work will affect the surrounding area must be carefully reviewed. Permanent ecological damage may occur if extensive habitat change has taken place. True biological controls may, too, have costs which outweigh the benefits or competency of their control capacity.

CMC's favored method of larval mosquito control is through bacterial bio-rational products. The main product used by CMC is a variety of bacteria (*Bacillus thuringiensis var. israeliensis*). *Bti* as it is known has become the cornerstone of mosquito control programs throughout the world. The benefits include its efficacy and lack of environmental impacts. When used properly successful control without impact to aquatic invertebrates, birds, mammals, fish, amphibians, reptiles, or humans can be achieved. A broad label allows for the use of the product in the majority of the habitats throughout the service area. Another bacterial product closely related to *Bti* is *Bacillus sphaericus* (*Bs*). In addition to all of the benefits of *Bti*, *Bs* is by definition a true biological control agent in that it remains in the system through multiple broods, or generations, of mosquitoes. Unfortunately the residual benefit of the control comes at a cost in price of approximately three times that of *Bti*.



Other larval control products include a growth regulators (methoprene, in the form of the product Altosid), mineral oils (BVA larviciding oil), and an organophosphate (Abate). Methoprene is a synthetic copy of a juvenile growth hormone in larval mosquitoes. The hormone prevents normal development of the adult mosquito in the pupal stage eventually causing death. While a good control product, the cost is prohibitive to be the predominant product in a large scale program. Abate serves as an effective product, but label restrictions limit its use in many areas. CMC limits the use of chemical larvicides to areas with little biodiversity, such as road side ditches, or areas which chronically produce large amounts of mosquitoes and use them only as a last resort when other solutions are not present. Mineral oil is the only product effective on the pupal stage and therefore is an essential tool when pupae are found.

All the fore mentioned methods and products represent the essential ingredients of Integrated Pest Management. Mosquitoes are very well adapted animals and can be found in many different habitat types from a cattail marsh to a cup littered on the side of the road. A variety of tools must be used to prevent resistance and ensure the best method will be available for any given situation.

CMC Surveillance Laboratory

Information about mosquito abundance and species identity is critical to a successful mosquito control program. Colorado Mosquito Control employs two kinds of traps to monitor mosquito populations. The most commonly used is the CDC light trap which uses carbon-dioxide from dry ice as bait to attract female mosquitoes seeking a blood meal from a breathing animal. Once attracted by the CO₂, the mosquitoes are lured by a small light to a fan that pulls them into a net for collection. The gravid trap uses a tub of highly-organic water as bait to attract female mosquitoes that are looking for a place to lay their eggs. A fan placed close to the water surface forces mosquitoes that come to the water into a collection net. Once back in the laboratory, the contents of the trap nets are counted and identified by technicians trained to recognize the Colorado mosquito species.





In 2014, Colorado Mosquito Control monitored a statewide network of hundreds of weekly trap sites, collecting 505,697 adult mosquitoes that were counted and identified to species by the CMC Surveillance Laboratory. While individual traps provide only limited information, trap data is interpreted in the context of historical records for the same trap site, going back in time more than a decade. Individual traps are also compared to other traps from around the region that were set on the same night and therefore exposed to similar weather conditions. Technicians working in the Surveillance Laboratory at Colorado Mosquito Control are trained to provide accurate species-level identification of mosquito specimens, for both adults and larvae.



Additionally, the CMC Surveillance Laboratory conducts an intensive larval identification program with larval mosquito samples collected by I&L technicians prior to larviciding being identified to species. This information is now invaluable in targeting mosquito control efforts as we gain a greater understanding of the habitat types preferred by Colorado mosquito species and the seasonality of these habitats as sites for mosquito development.



Specimens and data collected from these traps and larval identification are used in:

-  Determining effectiveness of larval control efforts. Each mosquito species prefers specific kinds of habitats for larval development. If a trap includes large numbers, it could indicate the presence of an unknown larval habitat and, based on the species identification and known habitat preference for that species, direct field technicians as to possible sources of the mosquitoes collected.
-  Determining larval and adult mosquito species. This helps to illustrate the threat of mosquito-borne disease amplification and transmission.
-  Determining where adult control efforts were necessary. While mosquito eradication is impossible, significant population reduction is achievable. In places where larval control was insufficient, especially in neighborhoods where adult mosquitoes migrated in from larval sources outside of the control area, it may be necessary to use adulticide methods, such as ULV truck fogging or barrier sprays of nearby harborage areas. Trap counts that exceeded an acceptable threshold for an area would trigger adult control measures.
-  Surveillance for Mosquito-borne Disease. Historically, CMC efforts were targeted primarily at controlling mosquito nuisance problems with limited disease surveillance. However, since the arrival of the West Nile virus in Colorado in August of 2002, the paradigm has shifted toward disease prevention and control. Accurate species identification of the mosquitoes in the traps is important when monitoring species population trends. It also is necessary for evaluating whether a population spike represents an actual increase in disease transmission potential or only an increased nuisance level.

SURVEILLANCE LIGHT TRAP DATA

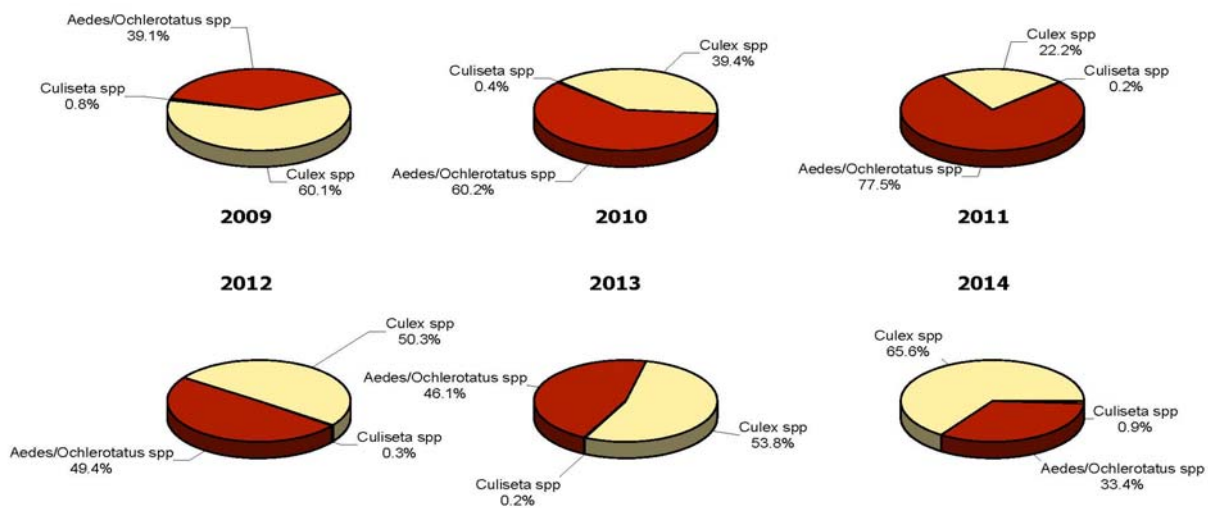
Longmont city council approved enhancements to the mosquito surveillance program in the spring of 2014 by expanding the number of traps being set in city limits on a weekly basis. The goal of the additional traps was to enable the assessment of mosquito abundance in areas that had not been surveyed before. The additional traps provide information for areas of downtown Longmont, as opposed to focusing surveillance at the periphery of the city.

The 2014 surveillance locations for the City of Longmont included: Jim Hamm Nature Area (LM-03), Mountain View Cemetery (LM-09), Garden Acres Park (LM-10), The Shores/McIntosh Lake (LM-17), Twin Peaks Circle (LM-18), Sandstone Ranch (LM-22), Union Reservoir (LM-23), Great Western/ Mill Village (LM-27), St. Vrain Greenway (LM-28), Left Hand Creek at Creekside (LM-31), Meadow View (LM-34), Liberty Court (LM-40), Stoney Ridge/ Alpine Elementary (LM-41), Izaak Walton Park (LM-42), Rough & Ready (LM-43), and Reserve at Somerset Meadows (LM-44). Boulder County Public Health also asked CMC to set the Boulder County Fairgrounds trap (LM-06) for comparison to the Izaak Walton trap in 2014, but CMC did not perform any response based adulticiding at the Boulder County fairgrounds.

Mosquito surveillance trapping began June 1st and was concluded August 24th. In 2014, 209 surveillance light traps were set within Longmont (including Boulder County Fairgrounds and floater traps), which collected 19,985 total mosquitoes. The average number of mosquitoes collected per trap per night was 96 and the average number of *Culex spp.* mosquitoes collected per trap per night was 63. The percent composition of mosquitoes collected from locations in 2014 included 33.4% (6,683) *Aedes/Ochlerotatus spp.*, 65.6% (13,117) *Culex spp.*, 1 (less than 1.0%) *Coquilleltidia perturbans*, and 184 (0.9%) *Culiseta spp.* mosquitoes. Please refer to the Light Trap Genus Summary for a weekly breakdown of mosquitoes collected by trap location, which also includes data for floater traps.

Annual CDC Light Trap Species Abundance Comparison

Compilation of all Surveillance Locations within City Limits of Longmont
*includes CDPHE sentinel traps which began in 2007)



2014: Total 19,985 mosquitoes from 209 trap nights (avg. 96 mosquitoes per trap night)
 2013: Total 23,473 mosquitoes from 153 trap nights (avg. 153 mosquitoes per trap night)
 2012: Total 10,559 mosquitoes from 143 trap nights (avg. 74 mosquitoes per trap night)
 2011: Total 49,281 mosquitoes from 184 trap nights (avg. 268 mosquitoes per trap night)
 2010: Total 25,070 mosquitoes from 173 trap nights (avg. 145 mosquitoes per trap night)
 2009: Total 28,306 mosquitoes from 190 trap nights (avg. 149 mosquitoes per trap night)

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CDPHE SEASONAL ADULT MOSQUITO POPULATION DATA COMPARISON

The Sentinel Encephalitis Surveillance Program was funded by the Colorado Department of Public Health and Environment (CDPHE) and Boulder County Public Health (BCPH) in 2014. Not all mosquitoes are tested for West Nile virus in the City of Longmont. Due to budget cutbacks associated with West Nile virus surveillance in recent years, the CDPHE does not have the ability to test mosquitoes from every location from across the state. Rather, a sample of the population is tested to better understand West Nile virus risk within the community.

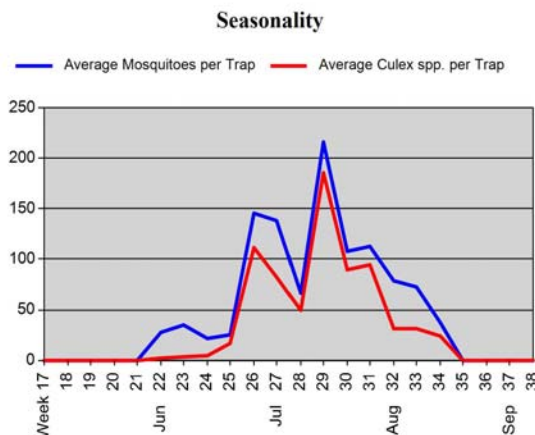
CMC maintained the sentinel system with five surveillance traps at permanent locations in the City of Longmont. The five surveillance trap locations were Jim Hamm Nature Area (LM-03), Boulder County Fairgrounds (LM-06), Garden Acres Park (LM-10), St. Vrain Greenway (LM-28), and Left Hand Creek at Creekside (LM-31). All *Culex* mosquitoes were sent to and tested by CDPHE on a weekly basis. The sentinel light traps were set once a week from June 1st to August 24th. There were 64 sentinel surveillance traps set in 2014, which collected a total of 5,385 mosquitoes.

2014 BCZ2 Sentinel Zone Trap Composite Data

Total number of trap/nights set:	64
Total number of mosquitoes collected:	5,385
Average mosquitoes per trap/night:	84
Average Culex per trap/night:	57

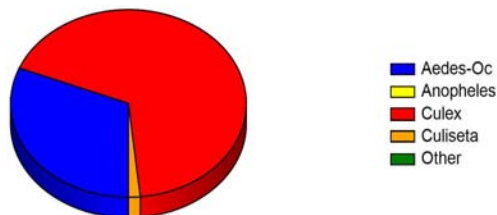
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	320	5.9 %
<i>Aedes (Oc.) increpitus</i>	12	0.2 %
<i>Aedes (Oc.) melanimon</i>	33	0.6 %
<i>Aedes (Oc.) trivittatus</i>	74	1.4 %
<i>Aedes vexans</i>	1239	23.0 %
<i>Culex pipiens</i>	98	1.8 %
<i>Culex salinarius</i>	106	2.0 %
<i>Culex tarsalis</i>	3417	63.5 %
<i>Culiseta inornata</i>	86	1.6 %



Genus proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,678	31.2 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	3,621	67.2 %
<i>Culiseta</i>	86	1.6 %
Other	0	0.0 %



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CDPHE WEST NILE VIRUS MOSQUITO SAMPLE TESTING RESULTS

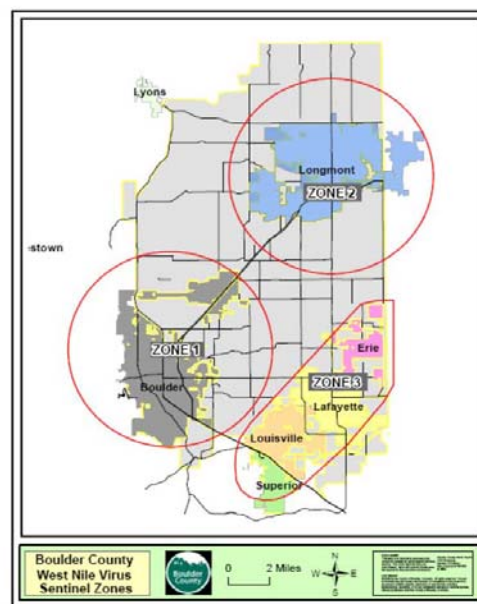
Many local health departments have moved towards mosquito-based surveillance indicators to assess the weekly risk of West Nile transmission and to guide response decisions for mosquito adulticiding. The vector index and infection rate is derived by testing the collected mosquitoes from CMC surveillance trapping for WNV infection. This value is closely monitored by the CDPHE and local health departments to evaluate the risk posed by the vector mosquito population. As stated on the CDPHE website, the seasonal variation of West Nile virus risk can change throughout a summer and it is best to assume you have some risk for WNV if you have mosquitoes.

As defined in the CDC guidelines for West Nile virus surveillance, prevention and control the vector index (VI) is an estimate of the number of West Nile virus infected mosquitoes in an area. This number can serve as a human health risk value. An operational value of 0.75, which was derived from comparison of historical data for human infections, as well as relative abundance and infection in mosquitoes, serves as an indicator of high risk for West Nile virus transmission to humans in the corresponding area (<https://www.colorado.gov/>). As the value of the vector index increases there is a corresponding risk of human disease and this value can be used to offset epidemics.

The Colorado Department of Public Health and Environment tested 30 sample pools of *Cx. pipiens* (containing 97 *Cx. pipiens*), 30 sample pools of *Cx. salinarius* (containing 105 *Cx. salinarius*), and 88 sample pools of *Cx. tarsalis* (containing 3,409 *Cx. tarsalis*) mosquitoes. These mosquitoes were collected from surveillance traps in the City of Longmont (Boulder County Sentinel Zone 2) during 2014. There were 30 pooled vials of mosquitoes collected from Boulder County Sentinel Zone 2 which were WNV positive in 2014. The vector index surpassed the 0.75 threshold a single time during 2014 in the City of Longmont. The vector index in the City of Longmont was 0.91 during week 28 (July 6th-July 12th) (Vector Indices provided by BCPH).



BOULDER COUNTY PUBLIC HEALTH
Environmental Health Division
3450 Broadway
Boulder, CO 80304
303.441.1564
www.bouldercountyhealth.org

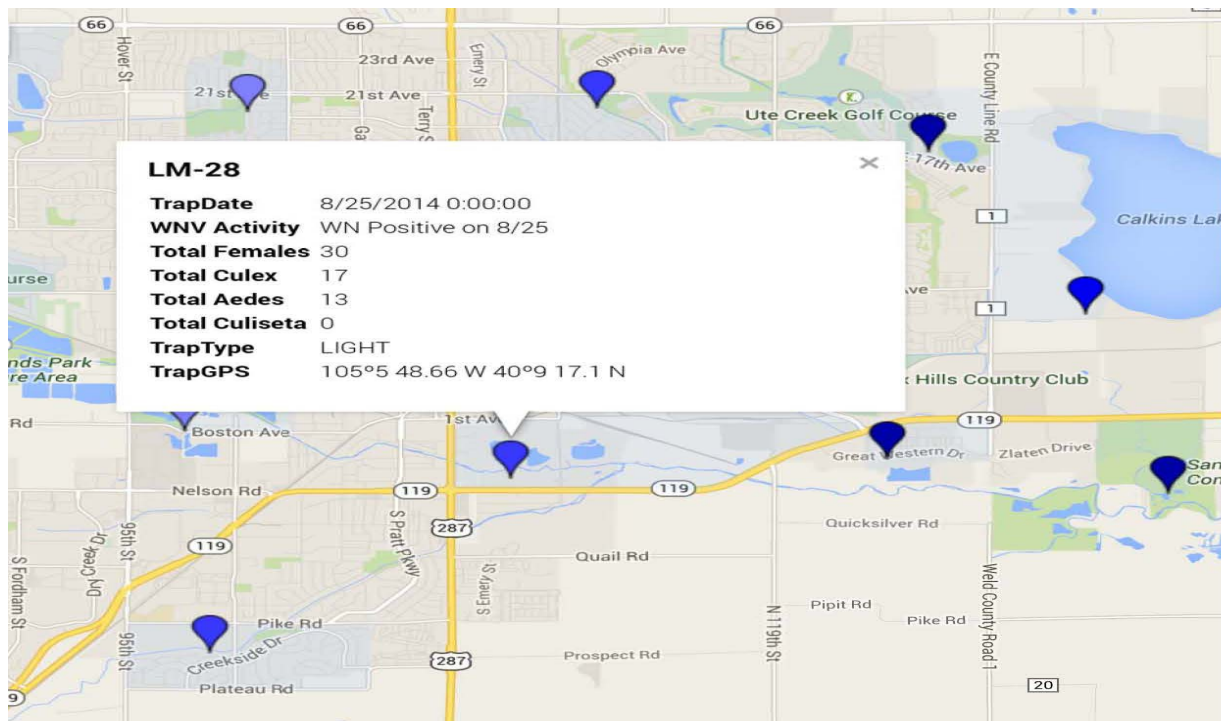


VECTOR INDEX LOG			
	ZONE 1	ZONE 2	ZONE 3
Season Week	Vector Index	Vector Index	Vector Index
Week 21	0.00	0.00	0.00
Week 22	0.00	0.00	0.00
Week 23	0.00	0.00	0.00
Week 24	0.00	0.00	0.00
Week 25	0.00	0.11	0.00
Week 26	0.00	0.00	0.00
Week 27	0.00	0.00	0.00
Week 28	0.00	0.91	0.00
Week 29	0.00	0.18	0.47
Week 30	0.00	0.22	0.00
Week 31	0.00	0.41	0.00
Week 32	0.00	0.20	0.00
Week 33	0.20	0.20	0.19
Week 34	0.00	0.00	0.00
Week 35	0.00	0.17	0.00

Pool ID	Date	Trap ID	Quantity	Results	Species	Trap Type
S316486	06/16/2014	LM-06	2	POSITIVE	Culex salinarius	LIGHT
S316486	06/16/2014	LM-28	2	POSITIVE	Culex salinarius	LIGHT
S316569	07/07/2014	LM-03	65	POSITIVE	Culex tarsalis	LIGHT
S316572	07/07/2014	LM-28	65	POSITIVE	Culex tarsalis	LIGHT
S316573	07/07/2014	LM-31	65	POSITIVE	Culex tarsalis	LIGHT
S316606	07/14/2014	LM-06	46	POSITIVE	Culex tarsalis	LIGHT
S316661	07/21/2014	LM-31	63	POSITIVE	Culex tarsalis	LIGHT
S316739	07/28/2014	LM-31	45	POSITIVE	Culex tarsalis	LIGHT
S316739	07/28/2014	LM-10	12	POSITIVE	Culex tarsalis	LIGHT
S316741	07/28/2014	LM-03	2	POSITIVE	Culex pipiens	LIGHT
S316741	07/28/2014	LM-06	5	POSITIVE	Culex pipiens	LIGHT
S316741	07/28/2014	LM-06	1	POSITIVE	Culex salinarius	LIGHT
S316741	07/28/2014	LM-10	3	POSITIVE	Culex pipiens	LIGHT
S316741	07/28/2014	LM-10	1	POSITIVE	Culex salinarius	LIGHT
S316741	07/28/2014	LM-28	7	POSITIVE	Culex salinarius	LIGHT
S316741	07/28/2014	LM-31	4	POSITIVE	Culex pipiens	LIGHT
S316741	07/28/2014	LM-31	3	POSITIVE	Culex salinarius	LIGHT
S317649	08/04/2014	LM-03	56	POSITIVE	Culex tarsalis	LIGHT
S317702	08/11/2014	LM-03	17	POSITIVE	Culex tarsalis	LIGHT
S317702	08/11/2014	LM-10	15	POSITIVE	Culex tarsalis	LIGHT
S317702	08/11/2014	LM-31	15	POSITIVE	Culex tarsalis	LIGHT
S317777	08/25/2014	LM-03	52	POSITIVE	Culex tarsalis	LIGHT
S317778	08/25/2014	LM-03	21	POSITIVE	Culex tarsalis	LIGHT
S317778	08/25/2014	LM-10	2	POSITIVE	Culex tarsalis	LIGHT
S317778	08/25/2014	LM-28	14	POSITIVE	Culex tarsalis	LIGHT
S317778	08/25/2014	LM-31	15	POSITIVE	Culex tarsalis	LIGHT
S317779	08/25/2014	LM-03	5	POSITIVE	Culex pipiens	LIGHT
S317779	08/25/2014	LM-03	8	POSITIVE	Culex salinarius	LIGHT
S317779	08/25/2014	LM-28	3	POSITIVE	Culex salinarius	LIGHT
S317779	08/25/2014	LM-31	1	POSITIVE	Culex salinarius	LIGHT

PLEASE VISIT CMC'S DASHBOARD FOR ONLINE ACCESS TO WEEKLY TRAP DATA & WNV LOCATIONS:

[HTTP://WWW.COMOSQUITOCONTROL.COM/LONGMONT.HTML](http://www.comosquitocontrol.com/longmont.html)

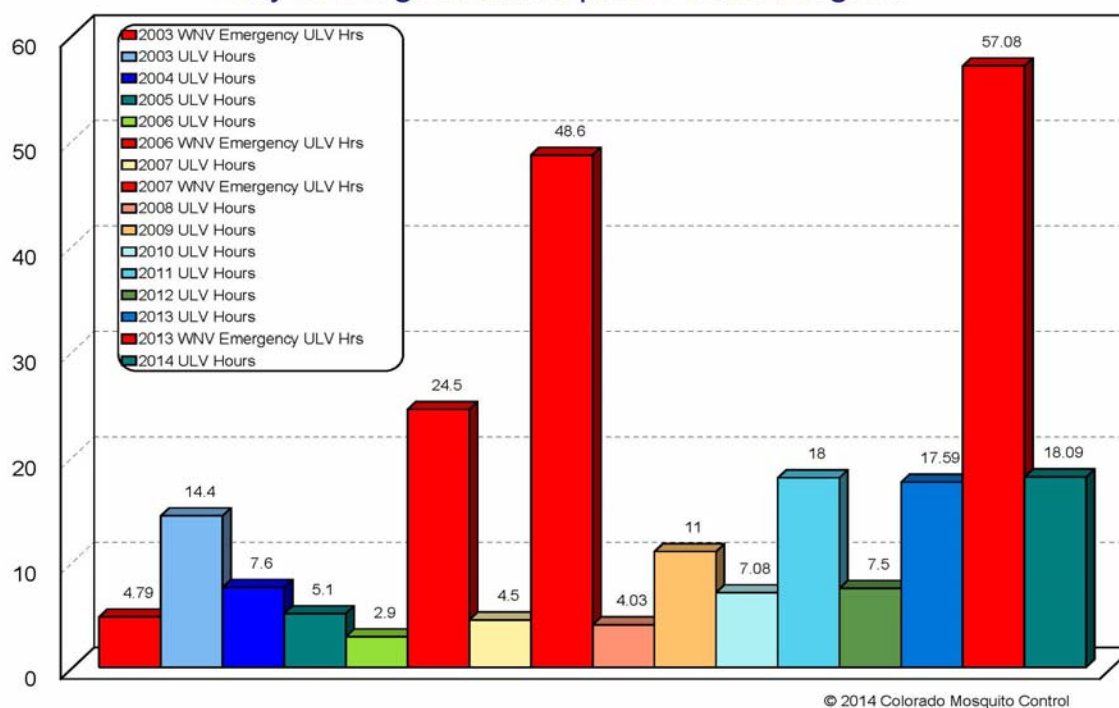


ADULT MOSQUITO CONTROL

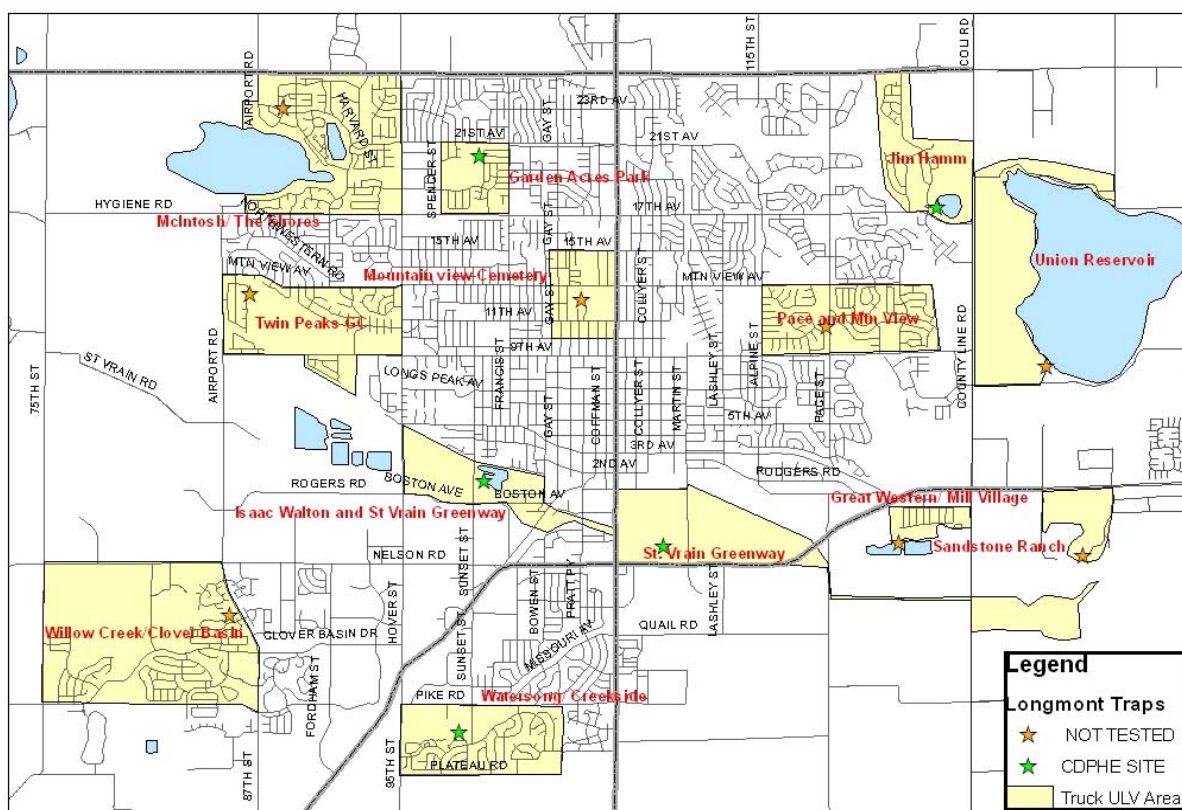
The goal of Colorado Mosquito Control is to provide all residents of our Boulder County Cooperative Programs with the best options for effective modern mosquito management. The primary emphasis of the City of Longmont Mosquito Management Program is to control mosquitoes in the larval stage, using biological control products which are target specific to larval mosquitoes. The need for mosquito adulticiding is determined by mosquito abundance data collected on a weekly basis from CDC CO2 baited light traps. The areas surrounding mosquito traps, designated in yellow in the map below, are fogged for adult mosquitoes when mosquito traps surpass 100 mosquitoes in a given trapping night. Mosquito spraying does not occur in the City of Longmont until WNV infected mosquitoes are identified from Larimer, Boulder or Weld County during a mosquito season. The objective of this Integrated Mosquito Management approach is to manage the vector populations and minimize the number of mosquitoes that will disperse into city limits, by reducing the number of mosquitoes harboring at the periphery of city limits. This approach not only reduces the amount of adulticides applied across the city and limits the biting frequency of mosquitoes in more densely populated parts of the city, but also complements larval mosquito control measures by preventing new vector mosquitoes from being produced with oviposition of eggs at larval sites.

In 2014 CMC utilized the water-based product AquaLuer 20-20 in all fogging operations in the City of Longmont. Colorado Mosquito Control performed 18.09 hours of mosquito adulticiding over 271.4 miles of roads and trails in Longmont, totaling 9,868.1 acres of lands.

**Comparison of ULV Adulticide Application Hours
City of Longmont Mosquito Control Program**



CMC worked with the Daily Times Call and the Public Information Officer at the City Manager's Office again in 2014 to provide resident notification of mosquito adulticide applications via the local newspaper and the city's website. CMC utilized mosquito trapping data collected on Sunday evenings each week, for reporting to the City of Longmont on Mondays. The City of Longmont would make decisions, based on mosquito trap counts, as to the areas to be included in mosquito spraying for that week. CMC communicated the areas to the Daily Times Call for posting in the newspaper on Tuesdays. CMC additionally posted the spray schedules for the City of Longmont on CMC's website on Mondays, which remained posted through Thursday, the day of applications. All mosquito spraying in designated adult mosquito spray zones was scheduled and completed on Thursday evenings, which allowed residents 48 hrs. notification following the posting in the Times Call.



CMC uses state of the art technology, calibrated application timing, and least-toxic products to minimize non-target impacts. All adult mosquito control is accomplished using Ultra Low Volume (ULV) fogging equipment and performed after dusk when the majority of mosquito species are most active. This type of equipment produces droplets averaging 12 microns in diameter and allows for a minimal amount of product to be put into the environment. These treatments take place in the evening when mosquitoes are flying in greater numbers and nontarget insect activity (for example, day-flying pollinators like bees) is greatly reduced. Using this application technique, the overall goal of minimal environmental impact and effective adult control is achieved in the targeted area.

Public Relations and Education

CMC believes in and remains dedicated to providing strong Public Outreach and Education Programs to all of our accounts. Citizen complaints, inquiry, information and satisfaction surveys can aid in evaluating the effectiveness of a program. CMC constantly looks for ways to better serve the communities we work with and appreciates both the citizen and local media involvement for the betterment of the programs we offer. We have clearly demonstrated that commitment and belief by proactively serving the community (and all of our contracted communities) with numerous innovative programs, activities and services.

Customer service is always a high priority for CMC. We take pride in training each and every technician so that they have the confidence and information to provide residents with the correct answers to sometimes difficult questions. Each field technician spends part of their day responding to resident concerns in their work area. This in-field customer service personalizes the mosquito control program, provides us with local information on mosquito activity and facilitates the valuable opportunity to truly communicate face-to-face with the residents we serve.

MosquitoLine™

CMC maintains a toll-free (in Colorado) telephone line: (877) 276-4306 and local lines at 970-962-2582 and 970-663-5697 (at no cost to the customer) to accept calls from the public concerning:

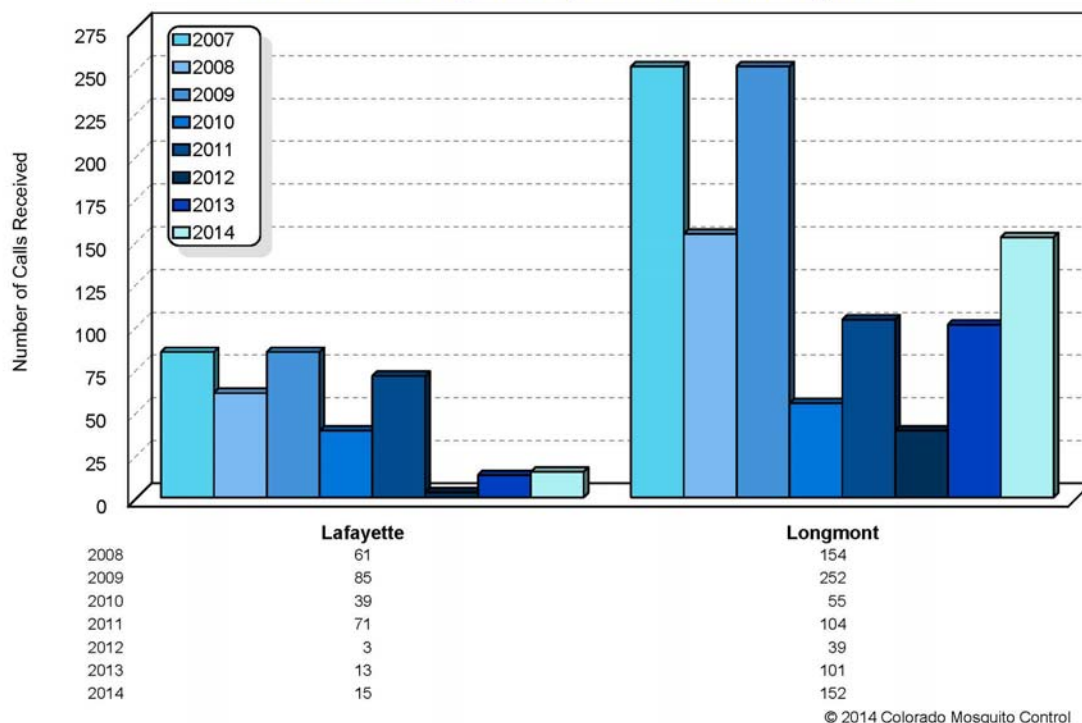
- ✧ Information about mosquito biology and source reduction of mosquito habitats
- ✧ Information on program components, operations, and monitoring efforts within the City
- ✧ Seasonal West Nile virus activity
- ✧ Personal protection options for mosquito annoyances and West Nile virus risk
- ✧ Reports and concerns of mosquitoes and possible larval mosquito habitats and perform larvicide applications to control mosquito larvae at no cost to the property owner
- ✧ Opt their property out of any adulticide spraying via a shut-off list
- ✧ Request notification when adulticide spraying is planned in and around their neighborhood
- ✧ Request health and safety information about mosquito control operations and pesticide products used in the City of Longmont



CMC has provided Mosquito Hotlines to the residents in communities which we are contracted to also reduce workload by municipal personnel. This enables direct communication and response by mosquito control employees to resident concern about West Nile virus and larval site activity and treatment. CMC maintains a log of calls received and will summarize call activity in monthly and annual reports.

In 2014 CMC fielded 152 phone calls from City of Longmont residents. Of these, there were forty five requests for information regarding the city's mosquito control program, questions about when and where mosquito spraying would occur and West Nile virus risk. There were sixty requests to be added to the call notification list or requests for shutoff of sprays around their homes within the City of Longmont. There were eighteen new larval sites reports, in which a CMC technician inspected the area for standing water. If the habitat posed potential for mosquito larvae, then CMC would treat and add the site into the routine inspection program for the City of Longmont. There were twenty mosquito annoyance calls received in 2014. CMC responded to these mosquito annoyances by either providing trap data for the local area, offering repellent options, or inspecting the area for new sites that may be producing mosquitoes and causing the annoyance. There were nine requests for special event sprays at private residences.

MosquitoLine Calls by Service Area Boulder County Mosquito Control Programs



CALL NOTIFICATION & SHUTOFF SYSTEM

CMC maintained its comprehensive Call Notification & Shutoff database in 2014 and notified residents' on the list when conducting ULV adulticide spray applications within 2 blocks of their property or within the effective ULV spray drift distance (300-500 ft. depending on wind speed and direction). All Shutoff locations are mapped in ArcView GIS. Call & Shutoff forms are available online and may be submitted by mail.

As of 2014, there are 278 residents of Longmont on the Call, Email Notification & Shutoff Program. Forty seven residents have asked for a call notification, eleven for a call & email, and thirty five residents have asked for an email notification on the day of spraying should it occur in their area. Sixty two residents have requested a call & shutoff of mosquito sprays near their homes, fifty four residents have requested a call, email and shutoff, fifty four residents have requested email notification and shutoff and fifteen residents have requested a shutoff of mosquito adulticides with no notification.

FREE FISH STOCKING PROGRAM

CMC will continue to work with residents to supply larvivorous fish to those residents with ornamental and closed-system ponds that are not currently stocked with fish and that may be producing mosquito problems in their neighborhoods. CMC technicians will physically visit the resident's homes to distribute fish.

FLOATER TRAP PLACEMENT for annoyance reports at resident homes at locations away from standard trapping zones.

DAILY POSTING OF ULV SPRAY ZONES posted by 3 pm for resident notification

<http://www.comosquitocontrol.com/SpraySchedules.html>

Summary

Human cases of West Nile virus disease over the last 15 years, as reported by the CDC, support the on-going need for data driven surveillance and sound integrated mosquito management efforts. Reports for human infections of West Nile virus disease ranks Colorado at 12.6% of the number of documented cases nationally. It is likely that the primary vector of WNV, *Cx. tarsalis* for this region, will continue to present human health risks for the foreseeable future given land use patterns and urban development across the agricultural communities of Colorado. West Nile virus is endemic to the region. Those risks for West Nile virus transmission are dependent every summer on surveillance monitoring, the application of biological and chemical controls, and public education outreach.



West Nile virus disease cases reported to CDC by state, 1999-2013

State	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Alabama	0	0	2	49	37	16	10	8	24	18	0	3	5	62	9	243
Alaska	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Arizona	0	0	0	0	13	391	113	150	97	114	20	167	69	133	62	1,329
Arkansas	0	0	0	43	25	28	28	29	20	9	6	7	1	64	18	278
California	0	0	0	1	3	779	880	278	380	445	112	111	158	479	379	4,005
Colorado	0	0	0	14	2,947	291	106	345	576	71	103	81	7	131	322	4,994
Connecticut	0	1	6	17	17	1	6	9	4	8	0	11	9	21	4	114
Delaware	0	0	0	1	17	0	2	0	1	1	0	0	1	9	3	35
Dist. of	0	0	0	34	3	2	5	2	0	8	2	6	15	10	1	88
Florida	0	0	12	28	94	41	21	3	3	3	3	12	24	73	7	324
Georgia	0	0	6	44	50	21	20	8	50	8	4	13	22	99	10	355
Hawaii	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	1	3	13	996	132	39	38	1	3	17	40	1,283
Illinois	0	0	0	884	54	60	252	215	101	20	5	61	34	290	117	2,093
Indiana	0	0	0	293	47	13	23	80	24	4	4	13	9	77	23	610
Iowa	0	0	0	54	147	23	37	37	30	6	5	9	9	31	44	432
Kansas	0	0	0	22	91	43	25	30	40	31	13	19	4	56	91	465
Kentucky	0	0	0	75	14	7	5	6	4	3	3	3	5	23	3	151
Louisiana	0	0	1	329	124	109	171	180	40	49	21	27	10	335	54	1,450
Maine	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Maryland	0	0	6	36	73	16	5	11	10	14	1	23	19	47	16	277
Massachusetts	0	0	3	23	17	0	6	3	6	1	0	7	6	33	8	113
Michigan	0	0	0	614	19	16	62	55	17	17	1	29	34	202	36	1,102
Minnesota	0	0	0	48	148	34	45	65	101	10	4	8	2	70	79	614
Mississippi	0	0	0	192	87	51	70	183	136	65	53	8	52	247	45	1,189
Missouri	0	0	0	168	64	36	30	62	77	15	5	3	10	20	29	519
Montana	0	0	0	2	222	6	25	34	202	5	5	0	1	6	38	546
Nebraska	0	0	0	152	1,942	53	188	264	163	47	52	39	29	193	226	3,348
Nevada	0	0	0	0	2	44	31	124	12	16	12	2	16	9	11	279
New Hampshire	0	0	0	0	3	0	0	0	0	0	0	1	0	1	1	6
New Jersey	0	6	12	24	34	1	6	5	1	10	3	30	7	48	12	199
New Mexico	0	0	0	0	209	88	33	8	60	8	8	25	4	47	38	528
New York	62	14	15	82	71	10	38	24	22	46	7	128	44	107	32	702
North Carolina	0	0	0	2	24	3	4	1	8	3	0	0	2	7	3	57
North Dakota	0	0	0	17	617	20	86	137	369	37	1	9	4	89	125	1,511
Ohio	0	0	0	441	108	12	61	48	23	15	2	5	21	121	24	881
Oklahoma	0	0	0	21	79	22	31	48	107	9	10	1	1	191	89	609
Oregon	0	0	0	0	0	3	7	69	26	16	11	0	0	11	16	159
Pennsylvania	0	0	3	62	237	15	25	9	10	14	0	28	6	60	11	480
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Rhode Island	0	0	0	1	7	0	1	0	1	1	0	0	1	4	1	17
South Carolina	0	0	0	1	6	2	5	1	5	1	3	1	0	29	7	61
South Dakota	0	0	0	37	1,039	51	229	113	208	39	21	20	2	203	149	2,111
Tennessee	0	0	0	56	26	14	18	22	11	19	9	4	18	33	24	254
Texas	0	0	0	202	720	176	195	354	260	64	115	89	27	1,868	183	4,253
Utah	0	0	0	0	1	11	52	158	70	26	2	2	3	5	7	337
Vermont	0	0	0	1	3	0	0	0	0	0	0	0	1	3	2	10
Virginia	0	0	0	29	26	5	1	5	5	1	5	5	9	30	6	127
Washington	0	0	0	0	0	0	0	3	0	3	38	2	0	4	1	51
West Virginia	0	0	0	3	2	0	0	1	0	1	0	0	2	10	1	20
Wisconsin	0	0	0	52	17	12	17	21	13	8	1	2	3	57	21	224
Wyoming	0	0	0	2	375	10	12	65	181	8	12	6	3	7	41	722
Total	62	21	66	4,156	9,862	2,539	3,000	4,269	3,630	1,356	720	1,021	712	5,674	2,469	39,557

Source: ArboNET, Arboviral Diseases Branch, Centers for Disease Control and Prevention

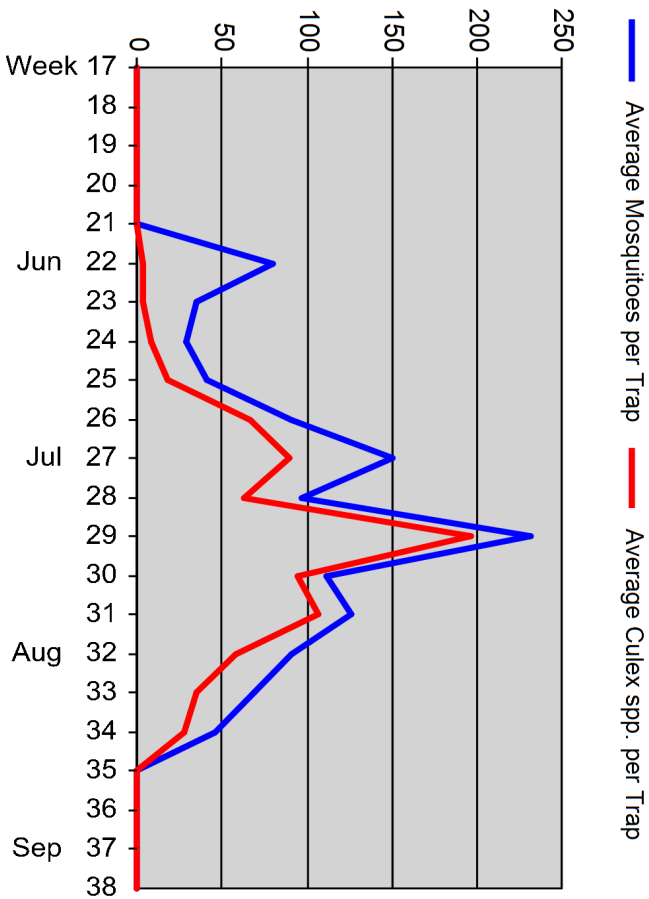
2014 Longmont CDC Trap Composite Data

Total number of trap/nights set: 209
Total number of mosquitoes collected: 19,985

Average mosquitoes per trap/night: 96

Average Culex per trap/night: 63

Seasonality

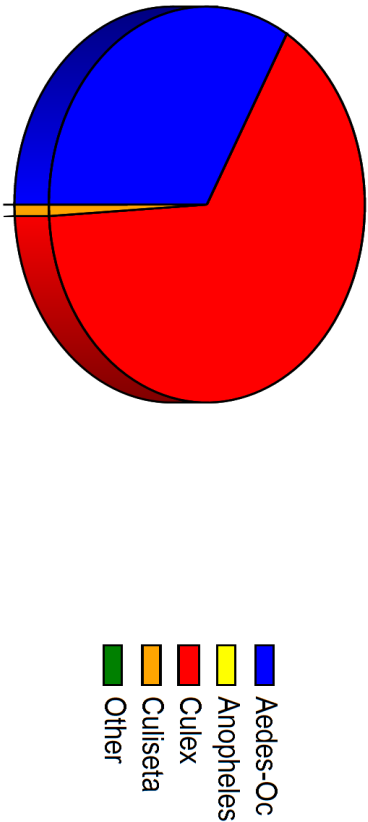


Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	652	3.3 %
<i>Aedes (Oc.) hendersoni</i>	14	0.1 %
<i>Aedes (Oc.) increpitus</i>	658	3.3 %
<i>Aedes (Oc.) melanion</i>	61	0.3 %
<i>Aedes (Oc.) nigromaculis</i>	1	0.0 %
<i>Aedes (Oc.) trivittatus</i>	390	2.0 %
<i>Aedes cinereus</i>	59	0.3 %
<i>Aedes vexans</i>	4848	24.3 %
<i>Coquilletidia perturbans</i>	1	0.0 %
<i>Culex pipiens</i>	315	1.6 %
<i>Culex salinarius</i>	317	1.6 %
<i>Culex tarsalis</i>	12485	62.5 %
<i>Culiseta inornata</i>	184	0.9 %

Genus proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	6,683	33.4 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	13,117	65.6 %
<i>Culiseta</i>	184	0.9 %
Other	1	0.0 %



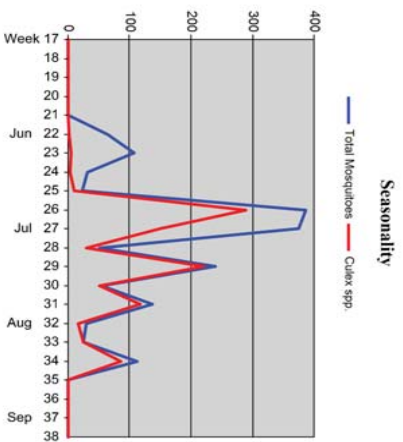
LM-03: Jim Hamm Nature Area

Season: 2014
 Trap Type: Light/CO2
 Location: Longmont 17th Ave. at Sundance Rd.
 GPS: N40° 11.350', W105° 3.585'

Total number of trap/nights set: 13
 Total number of mosquitoes collected: 1,638
 Average mosquitoes per trap/night: 126
 Average Culex per trap/night: 78

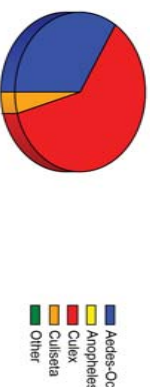
Species collected and abundance:

Species	Number	Percent of Total
<i>Aedes (Oe.) dorsalis</i>	105	6.4 %
<i>Aedes (Oe.) indanum</i>	27	1.6 %
<i>Aedes (Oe.) triseriatus</i>	3	0.2 %
<i>Aedes vexans</i>	423	25.8 %
<i>Culex pipiens</i>	11	0.7 %
<i>Culex salinarius</i>	16	1.0 %
<i>Culex tarsalis</i>	982	60.0 %
<i>Culiseta inornata</i>	71	4.3 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	558	34.1 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	1,009	61.6 %
<i>Culiseta</i>	71	4.3 %
Other	0	0.0 %



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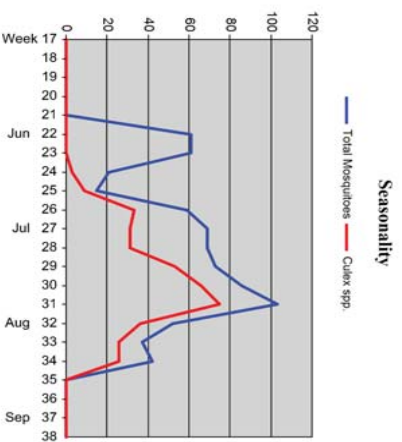
LM-09: Mountain View Cemetery

Season: 2014
 Trap Type: Light/CO2
 Location: Main St. at 11th Ave. - Mountain View Cemetery
 GPS: N40° 10.730', W105° 6.355'

Total number of trap/nights set: 12
 Total number of mosquitoes collected: 618
 Average mosquitoes per trap/night: 52
 Average Culex per trap/night: 30

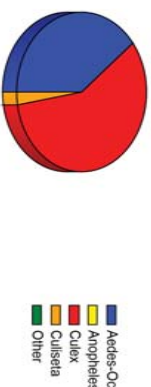
Species collected and abundance:

Species	Number	Percent of Total
<i>Aedes (Oe.) dorsalis</i>	6	1.0 %
<i>Aedes (Oe.) hendersoni</i>	10	1.6 %
<i>Aedes (Oe.) indanum</i>	2	0.3 %
<i>Aedes (Oe.) triseriatus</i>	11	1.8 %
<i>Aedes vexans</i>	215	34.8 %
<i>Culex pipiens</i>	21	3.4 %
<i>Culex salinarius</i>	15	2.4 %
<i>Culex tarsalis</i>	322	52.1 %
<i>Culiseta inornata</i>	16	2.6 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	244	39.5 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	358	57.9 %
<i>Culiseta</i>	16	2.6 %
Other	0	0.0 %



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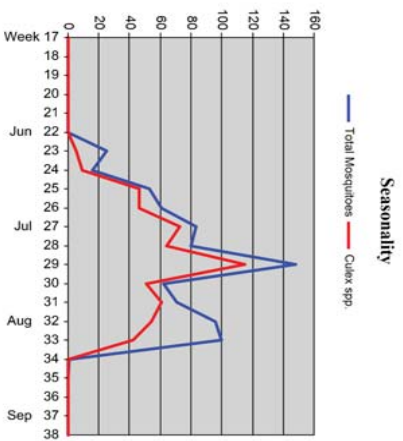
LM-06: Boulder Co Fairgrounds

Season: 2014
 Trap Type: Light/CO2
 Location: on Boston Ave. east of Hover Rd. across from Abra
 GPS: N40° 9.515', W105° 7.550'

Total number of trap/nights set: 12
 Total number of mosquitoes collected: 796
 Average mosquitoes per trap/night: 66
 Average Culex per trap/night: 47

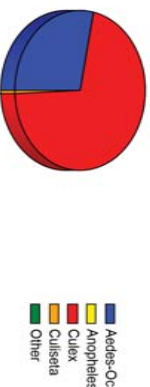
Species collected and abundance:

Species	Number	Percent of Total
<i>Aedes (Oe.) dorsalis</i>	32	4.0 %
<i>Aedes (Oe.) indanum</i>	2	0.3 %
<i>Aedes (Oe.) triseriatus</i>	4	0.5 %
<i>Aedes vexans</i>	9	1.1 %
<i>Culex pipiens</i>	178	22.4 %
<i>Culex tarsalis</i>	38	4.8 %
<i>Culex salinarius</i>	37	4.6 %
<i>Culex tarsalis</i>	491	61.7 %
<i>Culiseta inornata</i>	5	0.6 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	225	28.3 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	566	71.1 %
<i>Culiseta</i>	5	0.6 %
Other	0	0.0 %



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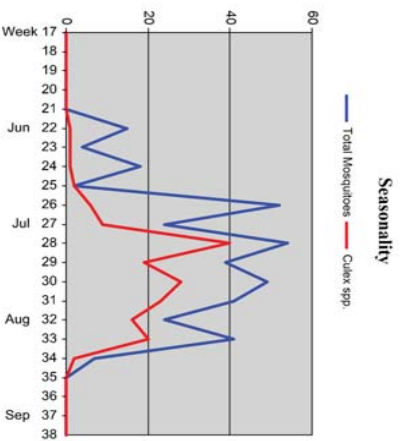
LM-10: Garden Acres Park

Season: 2014
 Trap Type: Light/CO2
 Location: Spencer St. at 18th Ave - east side of park
 GPS: N40° 11.640', W105° 7.240'

Total number of trap/nights set: 13
 Total number of mosquitoes collected: 370
 Average mosquitoes per trap/night: 28
 Average Culex per trap/night: 13

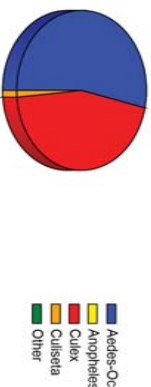
Species collected and abundance:

Species	Number	Percent of Total
<i>Aedes (Oe.) dorsalis</i>	46	12.4 %
<i>Aedes (Oe.) triseriatus</i>	1	0.3 %
<i>Aedes vexans</i>	151	40.8 %
<i>Culex pipiens</i>	20	5.4 %
<i>Culex salinarius</i>	3	0.8 %
<i>Culex tarsalis</i>	144	38.9 %
<i>Culiseta inornata</i>	5	1.4 %



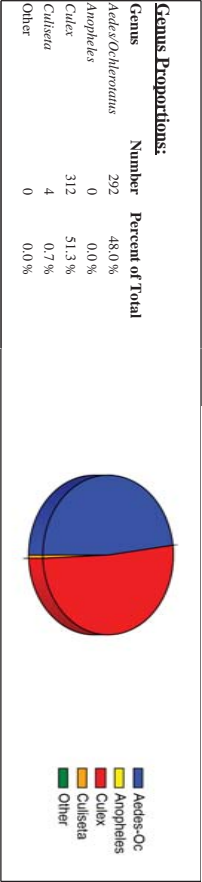
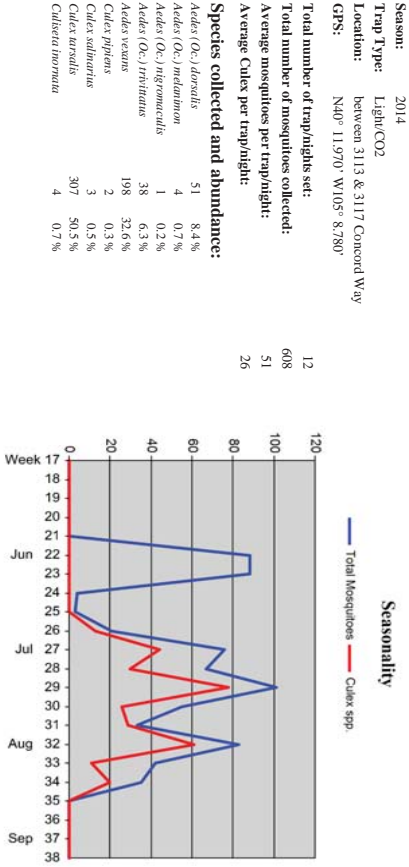
Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	198	53.5 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	167	45.1 %
<i>Culiseta</i>	5	1.4 %
Other	0	0.0 %



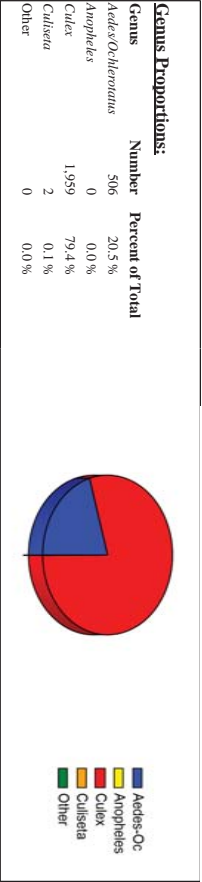
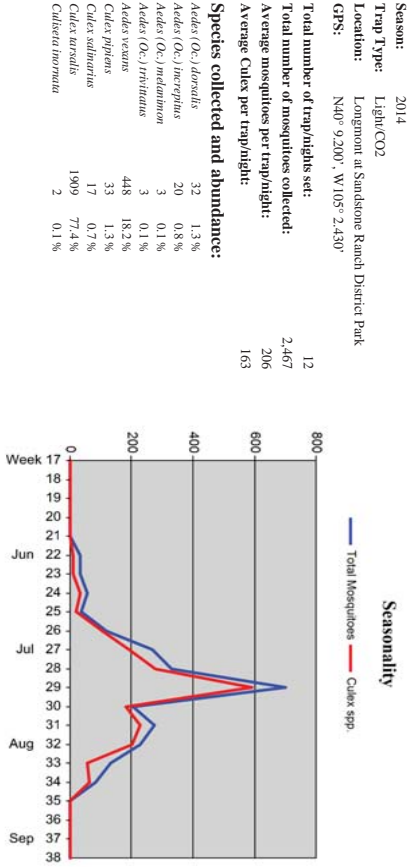
©2008 Colorado Mosquito Control, Inc.

LM-17: The Shores-Concord Way



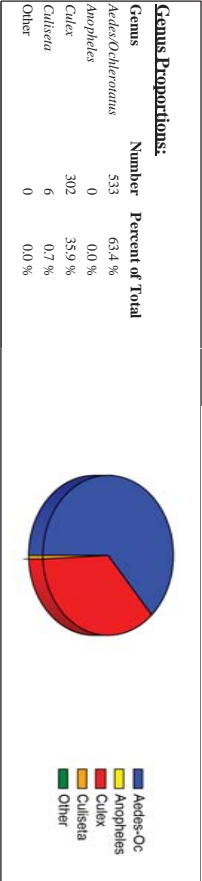
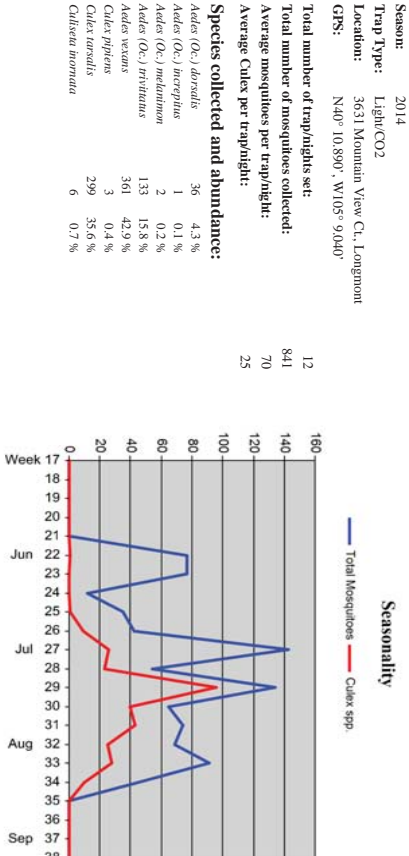
©2008 Colorado Mosquito Control, Inc.

LM-22: Sandstone Ranch



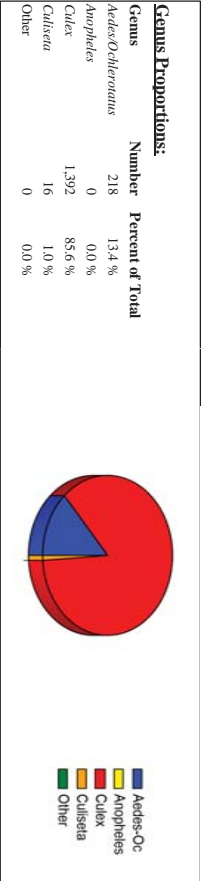
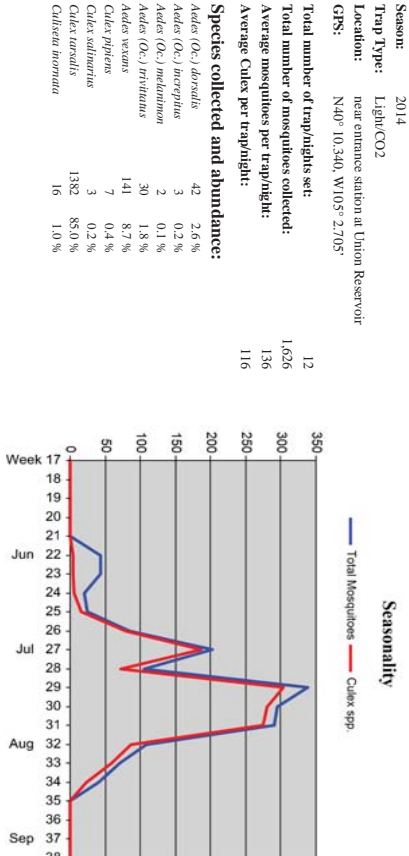
©2008 Colorado Mosquito Control, Inc.

LM-18: Twin Peaks Circle



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LM-23: Longmont Union Reservoir



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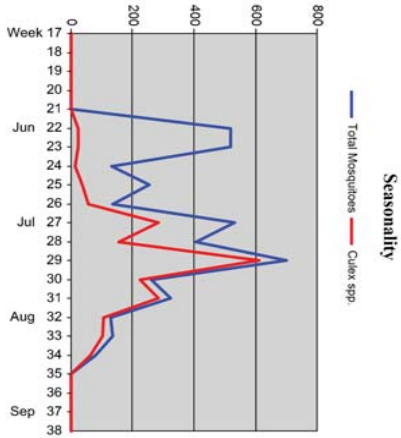
LM-27: Great Western/Mill Village

Season: 2014
Trap Type: Light CO2
Location: south of Great Western Dr. at 3rd Ave.
GPS: 40° 9.290' , W105° 3.895'

Total number of trap/nights set: 12
Total number of mosquitoes collected: 3,605
Average mosquitoes per trap/night: 300
Average Culex per trap/night: 163

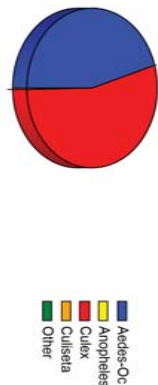
Species collected and abundance:

Aedes (Oc.) dorsalis 69 1.9 %
Aedes (Oc.) triseriatus 2 0.1 %
Aedes (Oc.) indubitans 33 0.9 %
Aedes vexans 933 25.9 %
Culex pipiens 36 1.0 %
Culex salinarius 60 1.7 %
Culex tarsalis 1863 51.7 %
Culiseta inornata 10 0.3 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,636	45.4 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	1,959	54.3 %
<i>Culiseta</i>	10	0.3 %
Other	0	0.0 %



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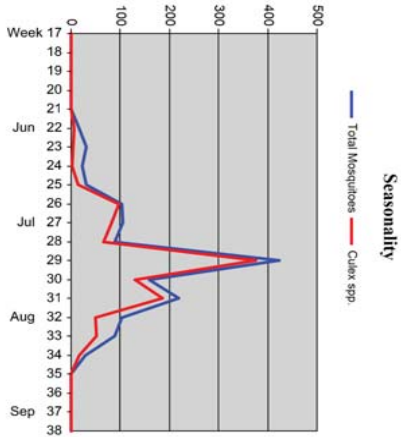
LM-28: St. Vrain Greenway at Emery St.

Season: 2014
Trap Type: Light CO2
Location: along St. Vrain Greenway west of Martin St.
GPS: N40° 9.285' , W105° 5.810'

Total number of trap/nights set: 13
Total number of mosquitoes collected: 1,423
Average mosquitoes per trap/night: 109
Average Culex per trap/night: 84

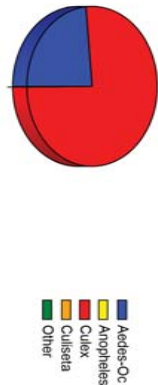
Species collected and abundance:

Aedes (Oc.) dorsalis 16 1.1 %
Aedes (Oc.) triseriatus 10 0.7 %
Aedes (Oc.) indubitans 17 1.2 %
Aedes vexans 291 20.4 %
Culex pipiens 12 0.8 %
Culex salinarius 43 3.0 %
Culex tarsalis 1032 72.5 %
Culiseta inornata 2 0.1 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	334	23.5 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	1,087	76.4 %
<i>Culiseta</i>	2	0.1 %
Other	0	0.0 %



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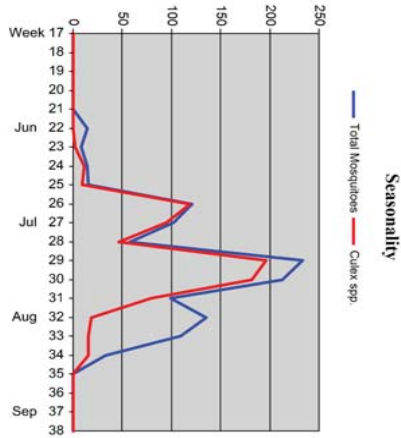
LM-31: Left Hand Creek at Creekside

Season: 2014
Trap Type: Light CO2
Location: Left Hand Creek south of Sunset St. & Pike Rd
GPS: N40° 8.115' , W105° 7.375'

Total number of trap/nights set: 13
Total number of mosquitoes collected: 1,158
Average mosquitoes per trap/night: 89
Average Culex per trap/night: 61

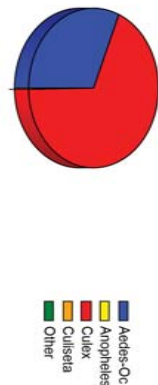
Species collected and abundance:

Aedes (Oc.) dorsalis 121 10.4 %
Aedes (Oc.) indubitans 2 0.2 %
Aedes (Oc.) triseriatus 44 3.8 %
Aedes vexans 196 16.9 %
Culex pipiens 17 1.5 %
Culex salinarius 7 0.6 %
Culex tarsalis 768 66.5 %
Culiseta inornata 3 0.3 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	363	31.3 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	792	68.4 %
<i>Culiseta</i>	3	0.3 %
Other	0	0.0 %



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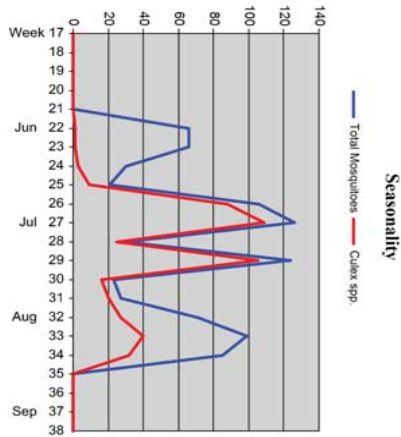
LM-34: Longmont Meadow View

Season: 2014
Trap Type: Light CO2
Location: Dry Creek Greenway west of Airport Road
GPS: N40° 8.830' , W105° 9.210'

Total number of trap/nights set: 12
Total number of mosquitoes collected: 808
Average mosquitoes per trap/night: 67
Average Culex per trap/night: 40

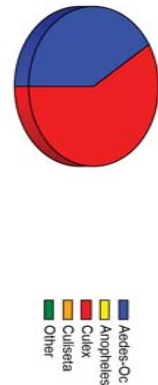
Species collected and abundance:

Aedes (Oc.) dorsalis 17 2.1 %
Aedes (Oc.) triseriatus 8 1.0 %
Aedes vexans 308 38.1 %
Culex pipiens 7 0.9 %
Culex salinarius 3 0.4 %
Culex tarsalis 465 57.5 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	333	41.2 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	475	58.8 %
<i>Culiseta</i>	0	0.0 %
Other	0	0.0 %



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LM-40: Liberty Court

Season: 2014

Trap Type: Light/CO2

Location: Liberty Court north of 15th Ave.

GPS: N40° 11.180', W105° 5.555'

Total number of trap/nights set: 12

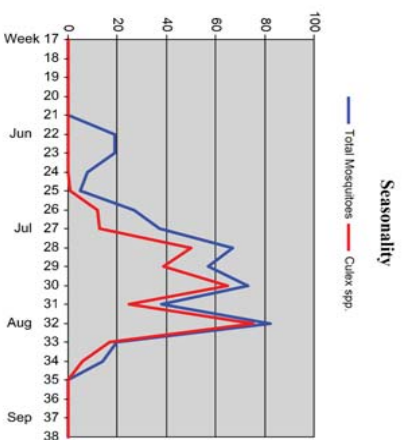
Total number of mosquitoes collected: 447

Average mosquitoes per trap/night: 37

Average Culex per trap/night: 25

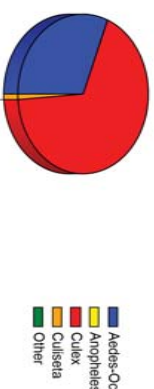
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	4	0.9 %
<i>Aedes (Oc.) hendersoni</i>	3	0.7 %
<i>Aedes (Oc.) indubitum</i>	1	0.2 %
<i>Aedes (Oc.) tritaenatus</i>	2	0.4 %
<i>Aedes vexans</i>	129	28.9 %
<i>Culex pipiens</i>	22	4.9 %
<i>Culex pipiens</i>	15	3.4 %
<i>Culex tarsalis</i>	266	59.5 %
<i>Culiseta inornata</i>	5	1.1 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	139	31.1 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	303	67.8 %
<i>Culiseta</i>	5	1.1 %
Other	0	0.0 %



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LM-41: Stoney Ridge/Alpine Elementary

Season: 2014

Trap Type: Light/CO2

Location: Lashley St. NE of Sunlight Dr.

GPS: N40° 11.655', W105° 5.365'

Total number of trap/nights set: 12

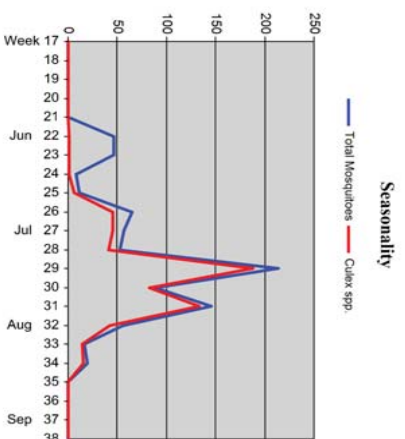
Total number of mosquitoes collected: 762

Average mosquitoes per trap/night: 65

Average Culex per trap/night: 51

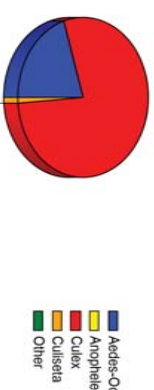
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	4	0.5 %
<i>Aedes (Oc.) hendersoni</i>	2	0.3 %
<i>Aedes (Oc.) indubitum</i>	5	0.6 %
<i>Aedes (Oc.) tritaenatus</i>	147	18.8 %
<i>Aedes vexans</i>	14	1.8 %
<i>Culex pipiens</i>	6	0.8 %
<i>Culex tarsalis</i>	595	76.1 %
<i>Culiseta inornata</i>	9	1.2 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	158	20.2 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	615	78.6 %
<i>Culiseta</i>	9	1.2 %
Other	0	0.0 %



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LM-42: Izaak Walton Park

Season: 2014

Trap Type: Light/CO2

Location: Sunset St. at St. Vrain River

GPS: N40° 9.765', W105° 7.215'

Total number of trap/nights set: 12

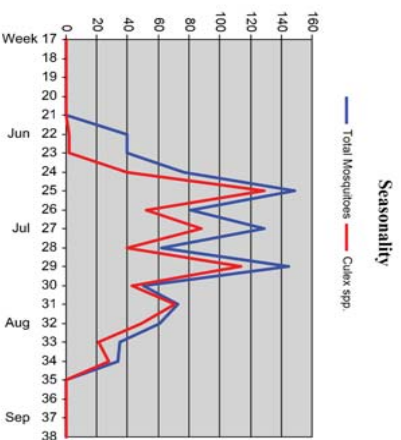
Total number of mosquitoes collected: 936

Average mosquitoes per trap/night: 78

Average Culex per trap/night: 56

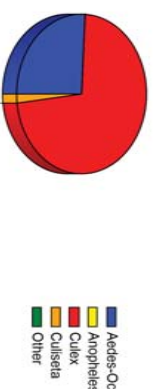
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	13	1.4 %
<i>Aedes (Oc.) hendersoni</i>	1	0.1 %
<i>Aedes (Oc.) incertipus</i>	21	2.2 %
<i>Aedes (Oc.) indubitum</i>	3	0.3 %
<i>Aedes (Oc.) tritaenatus</i>	2	0.2 %
<i>Aedes vexans</i>	59	6.3 %
<i>Aedes vexans</i>	143	15.3 %
<i>Culex pipiens</i>	27	2.9 %
<i>Culex tarsalis</i>	37	4.0 %
<i>Culex tarsalis</i>	613	65.5 %
<i>Culiseta inornata</i>	17	1.8 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	242	25.9 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	677	72.3 %
<i>Culiseta</i>	17	1.8 %
Other	0	0.0 %



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LM-43: Rough & Ready South

Season: 2014

Trap Type: Light/CO2

Location: Rough and Ready Trail at Pace St.

GPS: N40° 10.630', W105° 4.505'

Total number of trap/nights set: 12

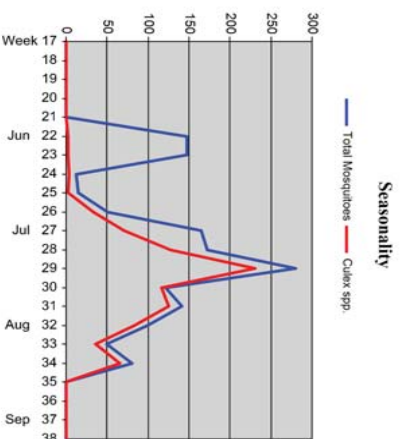
Total number of mosquitoes collected: 1,335

Average mosquitoes per trap/night: 111

Average Culex per trap/night: 75

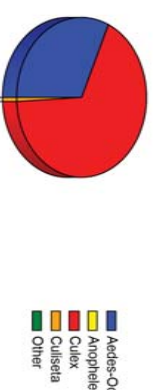
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	26	1.9 %
<i>Aedes (Oc.) incertipus</i>	2	0.1 %
<i>Aedes (Oc.) indubitum</i>	4	0.3 %
<i>Aedes (Oc.) tritaenatus</i>	1	0.1 %
<i>Aedes vexans</i>	391	29.3 %
<i>Culex pipiens</i>	21	1.6 %
<i>Culex tarsalis</i>	35	2.6 %
<i>Culex tarsalis</i>	844	63.2 %
<i>Culiseta inornata</i>	11	0.8 %



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotanus</i>	424	31.8 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	900	67.4 %
<i>Culiseta</i>	11	0.8 %
Other	0	0.0 %



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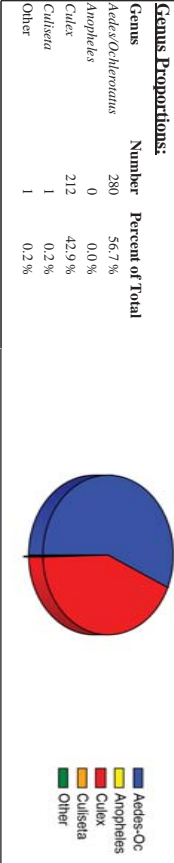
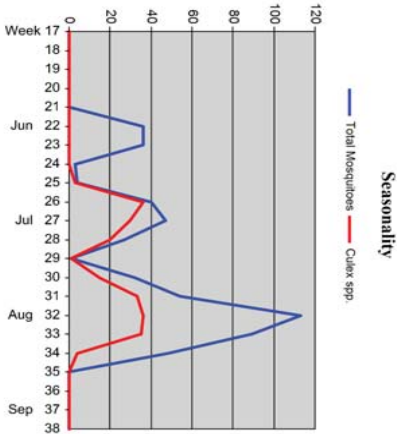
LM-44: Reserve at Somerset Meadows

Season: 2014
Trap Type: Light/CO2
Location: retention pond at Frederick Circle
GPS: N40° 8.230' , W105° 9.375'

Total number of trap/nights set: 12
Total number of mosquitoes collected: 494
Average mosquitoes per trap/night: 41
Average Culex per trap/night: 18

Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	32	6.5 %
<i>Aedes (Oc.) triseriatus</i>	3	0.6 %
<i>Aedes (Oc.) canadensis</i>	50	10.1 %
<i>Aedes vexans</i>	195	39.5 %
<i>Copidophora perturbans</i>	1	0.2 %
<i>Culex pipiens</i>	23	4.7 %
<i>Culex sollicitans</i>	17	3.4 %
<i>Culex tarsalis</i>	172	34.8 %
<i>Culiseta inornata</i>	1	0.2 %



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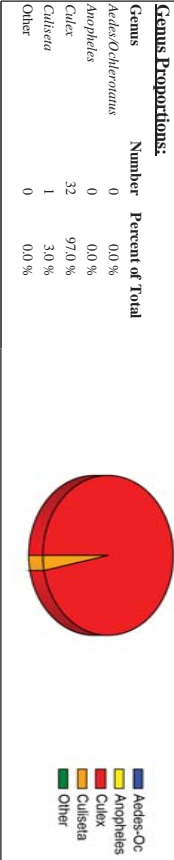
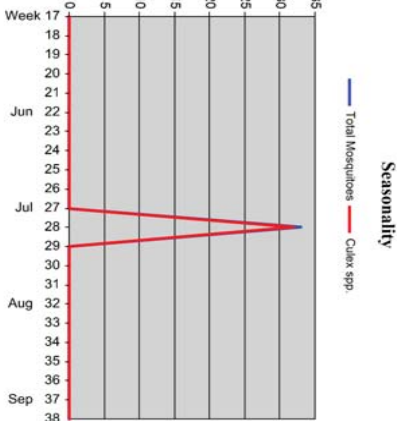
LM-45: Southmoor Park

Season: 2014
Trap Type: Light/CO2
Location: Quebec Avenue at S. Emery St.
GPS: N40° 8.475' , W105° 5.940'

Total number of trap/nights set: 1
Total number of mosquitoes collected: 33
Average mosquitoes per trap/night: 33
Average Culex per trap/night: 32

Species collected and abundance:

<i>Culex pipiens</i>	1	3.0 %
<i>Culex tarsalis</i>	31	93.9 %
<i>Culiseta inornata</i>	1	3.0 %



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Adult Trap Data - Genus Summary

Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LM-03	LIGHT	Boulder	06/02/2014	Jim Hamm Nature Area	63	0	1	1	0	65
LM-03	LIGHT	Boulder	06/13/2014	Jim Hamm Nature Area	102	0	5	0	0	107
LM-03	LIGHT	Boulder	06/16/2014	Jim Hamm Nature Area	23	0	4	4	0	31
LM-03	LIGHT	Boulder	06/23/2014	Jim Hamm Nature Area	7	0	10	6	0	23
LM-03	LIGHT	Boulder	06/30/2014	Jim Hamm Nature Area	62	0	290	35	0	387
LM-03	LIGHT	Boulder	07/07/2014	Jim Hamm Nature Area	202	0	151	22	0	375
LM-03	LIGHT	Boulder	07/14/2014	Jim Hamm Nature Area	22	0	29	0	0	51
LM-03	LIGHT	Boulder	07/21/2014	Jim Hamm Nature Area	15	0	222	2	0	239
LM-03	LIGHT	Boulder	07/28/2014	Jim Hamm Nature Area	4	0	51	0	0	55
LM-03	LIGHT	Boulder	08/04/2014	Jim Hamm Nature Area	19	0	118	1	0	138
LM-03	LIGHT	Boulder	08/11/2014	Jim Hamm Nature Area	13	0	17	0	0	30
LM-03	LIGHT	Boulder	08/18/2014	Jim Hamm Nature Area	0	0	25	0	0	25
LM-03	LIGHT	Boulder	08/25/2014	Jim Hamm Nature Area	26	0	86	0	0	112
LM-06	LIGHT	Boulder	06/13/2014	Boulder Co Fairgrounds	20	0	5	0	0	25
LM-06	LIGHT	Boulder	06/16/2014	Boulder Co Fairgrounds	7	0	9	0	0	16
LM-06	LIGHT	Boulder	06/23/2014	Boulder Co Fairgrounds	6	0	46	1	0	53
LM-06	LIGHT	Boulder	06/30/2014	Boulder Co Fairgrounds	12	0	46	3	0	61
LM-06	LIGHT	Boulder	07/07/2014	Boulder Co Fairgrounds	10	0	73	0	0	83
LM-06	LIGHT	Boulder	07/14/2014	Boulder Co Fairgrounds	16	0	64	0	0	80
LM-06	LIGHT	Boulder	07/21/2014	Boulder Co Fairgrounds	32	0	115	1	0	148
LM-06	LIGHT	Boulder	07/28/2014	Boulder Co Fairgrounds	11	0	51	0	0	62
LM-06	LIGHT	Boulder	08/04/2014	Boulder Co Fairgrounds	10	0	61	0	0	71
LM-06	LIGHT	Boulder	08/11/2014	Boulder Co Fairgrounds	42	0	54	0	0	96
LM-06	LIGHT	Boulder	08/18/2014	Boulder Co Fairgrounds	58	0	42	0	0	100
LM-06	LIGHT	Boulder	08/25/2014	Boulder Co Fairgrounds	1	0	0	0	0	1
LM-09	LIGHT	Boulder	06/02/2014	Mountain View Cemetery	60	0	0	1	0	61
LM-09	LIGHT	Boulder	06/16/2014	Mountain View Cemetery	14	0	3	4	0	21
LM-09	LIGHT	Boulder	06/23/2014	Mountain View Cemetery	4	0	9	2	0	15
LM-09	LIGHT	Boulder	06/30/2014	Mountain View Cemetery	20	0	33	6	0	59
LM-09	LIGHT	Boulder	07/07/2014	Mountain View Cemetery	37	0	31	1	0	69
LM-09	LIGHT	Boulder	07/14/2014	Mountain View Cemetery	0	0	0	0	0	0
LM-09	LIGHT	Boulder	07/21/2014	Mountain View Cemetery	20	0	53	0	0	73
LM-09	LIGHT	Boulder	07/28/2014	Mountain View Cemetery	20	0	66	0	0	86
LM-09	LIGHT	Boulder	08/04/2014	Mountain View Cemetery	27	0	75	1	0	103
LM-09	LIGHT	Boulder	08/11/2014	Mountain View Cemetery	16	0	36	0	0	52
LM-09	LIGHT	Boulder	08/18/2014	Mountain View Cemetery	11	0	26	0	0	37
LM-09	LIGHT	Boulder	08/25/2014	Mountain View Cemetery	15	0	26	1	0	42
LM-10	LIGHT	Boulder	06/02/2014	Garden Acres Park	14	0	1	0	0	15
LM-10	LIGHT	Boulder	06/13/2014	Garden Acres Park	3	0	0	1	0	4
LM-10	LIGHT	Boulder	06/16/2014	Garden Acres Park	17	0	1	0	0	18
LM-10	LIGHT	Boulder	06/23/2014	Garden Acres Park	0	0	2	0	0	2
LM-10	LIGHT	Boulder	06/30/2014	Garden Acres Park	45	0	6	1	0	52



Adult Trap Data - Genus Summary

Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LM-10	LIGHT	Boulder	07/07/2014	Garden Acres Park	15	0	9	0	0	24
LM-10	LIGHT	Boulder	07/14/2014	Garden Acres Park	14	0	40	0	0	54
LM-10	LIGHT	Boulder	07/21/2014	Garden Acres Park	20	0	19	0	0	39
LM-10	LIGHT	Boulder	07/28/2014	Garden Acres Park	20	0	28	1	0	49
LM-10	LIGHT	Boulder	08/04/2014	Garden Acres Park	18	0	23	0	0	41
LM-10	LIGHT	Boulder	08/11/2014	Garden Acres Park	8	0	16	0	0	24
LM-10	LIGHT	Boulder	08/18/2014	Garden Acres Park	19	0	20	2	0	41
LM-10	LIGHT	Boulder	08/25/2014	Garden Acres Park	5	0	2	0	0	7
LM-17	LIGHT	Boulder	06/02/2014	The Shores-Concord Way	88	0	0	0	0	88
LM-17	LIGHT	Boulder	06/16/2014	The Shores-Concord Way	4	0	0	0	0	4
LM-17	LIGHT	Boulder	06/23/2014	The Shores-Concord Way	3	0	0	0	0	3
LM-17	LIGHT	Boulder	06/30/2014	The Shores-Concord Way	8	0	13	0	0	21
LM-17	LIGHT	Boulder	07/07/2014	The Shores-Concord Way	31	0	44	1	0	76
LM-17	LIGHT	Boulder	07/14/2014	The Shores-Concord Way	37	0	30	0	0	67
LM-17	LIGHT	Boulder	07/21/2014	The Shores-Concord Way	23	0	78	0	0	101
LM-17	LIGHT	Boulder	07/28/2014	The Shores-Concord Way	29	0	26	0	0	55
LM-17	LIGHT	Boulder	08/04/2014	The Shores-Concord Way	4	0	29	0	0	33
LM-17	LIGHT	Boulder	08/11/2014	The Shores-Concord Way	20	0	61	2	0	83
LM-17	LIGHT	Boulder	08/18/2014	The Shores-Concord Way	30	0	11	1	0	42
LM-17	LIGHT	Boulder	08/25/2014	The Shores-Concord Way	15	0	20	0	0	35
LM-18	LIGHT	Boulder	06/02/2014	Twin Peaks Circle	76	0	1	0	0	77
LM-18	LIGHT	Boulder	06/16/2014	Twin Peaks Circle	11	0	0	1	0	12
LM-18	LIGHT	Boulder	06/23/2014	Twin Peaks Circle	34	0	1	0	0	35
LM-18	LIGHT	Boulder	06/30/2014	Twin Peaks Circle	32	0	9	1	0	42
LM-18	LIGHT	Boulder	07/07/2014	Twin Peaks Circle	117	0	26	0	0	143
LM-18	LIGHT	Boulder	07/14/2014	Twin Peaks Circle	31	0	23	0	0	54
LM-18	LIGHT	Boulder	07/21/2014	Twin Peaks Circle	37	0	96	1	0	134
LM-18	LIGHT	Boulder	07/28/2014	Twin Peaks Circle	25	0	40	0	0	65
LM-18	LIGHT	Boulder	08/04/2014	Twin Peaks Circle	31	0	43	0	0	74
LM-18	LIGHT	Boulder	08/11/2014	Twin Peaks Circle	43	0	25	1	0	69
LM-18	LIGHT	Boulder	08/18/2014	Twin Peaks Circle	62	0	28	1	0	91
LM-18	LIGHT	Boulder	08/25/2014	Twin Peaks Circle	34	0	10	1	0	45
LM-22	LIGHT	Weld	06/02/2014	Sandstone Ranch	24	0	9	0	0	33
LM-22	LIGHT	Weld	06/16/2014	Sandstone Ranch	24	0	33	0	0	57
LM-22	LIGHT	Weld	06/23/2014	Sandstone Ranch	18	0	19	0	0	37
LM-22	LIGHT	Weld	06/30/2014	Sandstone Ranch	13	0	105	0	0	118
LM-22	LIGHT	Weld	07/07/2014	Sandstone Ranch	76	0	192	1	0	269
LM-22	LIGHT	Weld	07/14/2014	Sandstone Ranch	55	0	277	0	0	332
LM-22	LIGHT	Weld	07/21/2014	Sandstone Ranch	107	0	593	0	0	700
LM-22	LIGHT	Weld	07/28/2014	Sandstone Ranch	22	0	182	0	0	204
LM-22	LIGHT	Weld	08/04/2014	Sandstone Ranch	48	0	227	0	0	275
LM-22	LIGHT	Weld	08/11/2014	Sandstone Ranch	26	0	202	0	0	228



Adult Trap Data - Genus Summary

Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LM-22	LIGHT	Weld	08/18/2014	Sandstone Ranch	74	0	57	0	0	131
LM-22	LIGHT	Weld	08/25/2014	Sandstone Ranch	19	0	63	1	0	83
LM-23	LIGHT	Weld	06/02/2014	Longmont Union Reservoir	39	0	4	0	0	43
LM-23	LIGHT	Weld	06/16/2014	Longmont Union Reservoir	13	0	6	1	0	20
LM-23	LIGHT	Weld	06/23/2014	Longmont Union Reservoir	8	0	16	1	0	25
LM-23	LIGHT	Weld	06/30/2014	Longmont Union Reservoir	4	0	80	1	0	85
LM-23	LIGHT	Weld	07/07/2014	Longmont Union Reservoir	15	0	186	2	0	203
LM-23	LIGHT	Weld	07/14/2014	Longmont Union Reservoir	32	0	73	1	0	106
LM-23	LIGHT	Weld	07/21/2014	Longmont Union Reservoir	33	0	303	2	0	338
LM-23	LIGHT	Weld	07/28/2014	Longmont Union Reservoir	12	0	281	2	0	295
LM-23	LIGHT	Weld	08/04/2014	Longmont Union Reservoir	15	0	274	1	0	290
LM-23	LIGHT	Weld	08/11/2014	Longmont Union Reservoir	20	0	87	2	0	109
LM-23	LIGHT	Weld	08/18/2014	Longmont Union Reservoir	9	0	59	3	0	71
LM-23	LIGHT	Weld	08/25/2014	Longmont Union Reservoir	18	0	23	0	0	41
LM-27	LIGHT	Boulder	06/02/2014	Great Western/Mill Village	495	0	22	1	0	518
LM-27	LIGHT	Boulder	06/16/2014	Great Western/Mill Village	117	0	14	1	0	132
LM-27	LIGHT	Boulder	06/23/2014	Great Western/Mill Village	218	0	35	2	0	255
LM-27	LIGHT	Boulder	06/30/2014	Great Western/Mill Village	76	0	57	1	0	134
LM-27	LIGHT	Boulder	07/07/2014	Great Western/Mill Village	249	0	283	1	0	533
LM-27	LIGHT	Boulder	07/14/2014	Great Western/Mill Village	251	0	154	1	0	406
LM-27	LIGHT	Boulder	07/21/2014	Great Western/Mill Village	87	0	613	0	0	700
LM-27	LIGHT	Boulder	07/28/2014	Great Western/Mill Village	36	0	224	2	0	262
LM-27	LIGHT	Boulder	08/04/2014	Great Western/Mill Village	38	0	284	1	0	323
LM-27	LIGHT	Boulder	08/11/2014	Great Western/Mill Village	21	0	107	0	0	128
LM-27	LIGHT	Boulder	08/18/2014	Great Western/Mill Village	34	0	102	0	0	136
LM-27	LIGHT	Boulder	08/25/2014	Great Western/Mill Village	14	0	64	0	0	78
LM-28	LIGHT	Boulder	06/02/2014	St. Vrain Greenway at Em	10	0	7	0	0	17
LM-28	LIGHT	Boulder	06/13/2014	St. Vrain Greenway at Em	27	0	5	0	0	32
LM-28	LIGHT	Boulder	06/16/2014	St. Vrain Greenway at Em	21	0	2	0	0	23
LM-28	LIGHT	Boulder	06/23/2014	St. Vrain Greenway at Em	17	0	14	0	0	31
LM-28	LIGHT	Boulder	06/30/2014	St. Vrain Greenway at Em	5	0	98	0	0	103
LM-28	LIGHT	Boulder	07/07/2014	St. Vrain Greenway at Em	22	0	83	1	0	106
LM-28	LIGHT	Boulder	07/14/2014	St. Vrain Greenway at Em	23	0	66	0	0	89
LM-28	LIGHT	Boulder	07/21/2014	St. Vrain Greenway at Em	46	0	376	1	0	423
LM-28	LIGHT	Boulder	07/28/2014	St. Vrain Greenway at Em	28	0	131	0	0	159
LM-28	LIGHT	Boulder	08/04/2014	St. Vrain Greenway at Em	32	0	186	0	0	218
LM-28	LIGHT	Boulder	08/11/2014	St. Vrain Greenway at Em	54	0	50	0	0	104
LM-28	LIGHT	Boulder	08/18/2014	St. Vrain Greenway at Em	36	0	52	0	0	88
LM-28	LIGHT	Boulder	08/25/2014	St. Vrain Greenway at Em	13	0	17	0	0	30
LM-31	LIGHT	Boulder	06/02/2014	Left Hand Creek at Creeks	15	0	0	0	0	15
LM-31	LIGHT	Boulder	06/13/2014	Left Hand Creek at Creeks	6	0	2	0	0	8
LM-31	LIGHT	Boulder	06/16/2014	Left Hand Creek at Creeks	4	0	11	0	0	15



Adult Trap Data - Genus Summary

Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LM-31	LIGHT	Boulder	06/23/2014	Left Hand Creek at Creeks	7	0	9	0	0	16
LM-31	LIGHT	Boulder	06/30/2014	Left Hand Creek at Creeks	2	0	119	0	0	121
LM-31	LIGHT	Boulder	07/07/2014	Left Hand Creek at Creeks	5	0	95	2	0	102
LM-31	LIGHT	Boulder	07/14/2014	Left Hand Creek at Creeks	11	0	47	0	0	58
LM-31	LIGHT	Boulder	07/21/2014	Left Hand Creek at Creeks	37	0	196	0	0	233
LM-31	LIGHT	Boulder	07/28/2014	Left Hand Creek at Creeks	30	0	182	1	0	213
LM-31	LIGHT	Boulder	08/04/2014	Left Hand Creek at Creeks	19	0	80	0	0	99
LM-31	LIGHT	Boulder	08/11/2014	Left Hand Creek at Creeks	116	0	19	0	0	135
LM-31	LIGHT	Boulder	08/18/2014	Left Hand Creek at Creeks	94	0	16	0	0	110
LM-31	LIGHT	Boulder	08/25/2014	Left Hand Creek at Creeks	17	0	16	0	0	33
LM-34	LIGHT	Boulder	06/02/2014	Longmont Meadow View	65	0	1	0	0	66
LM-34	LIGHT	Boulder	06/16/2014	Longmont Meadow View	27	0	3	0	0	30
LM-34	LIGHT	Boulder	06/23/2014	Longmont Meadow View	12	0	9	0	0	21
LM-34	LIGHT	Boulder	06/30/2014	Longmont Meadow View	18	0	88	0	0	106
LM-34	LIGHT	Boulder	07/07/2014	Longmont Meadow View	17	0	109	0	0	126
LM-34	LIGHT	Boulder	07/14/2014	Longmont Meadow View	5	0	25	0	0	30
LM-34	LIGHT	Boulder	07/21/2014	Longmont Meadow View	19	0	105	0	0	124
LM-34	LIGHT	Boulder	07/28/2014	Longmont Meadow View	7	0	16	0	0	23
LM-34	LIGHT	Boulder	08/04/2014	Longmont Meadow View	7	0	20	0	0	27
LM-34	LIGHT	Boulder	08/11/2014	Longmont Meadow View	44	0	27	0	0	71
LM-34	LIGHT	Boulder	08/18/2014	Longmont Meadow View	59	0	40	0	0	99
LM-34	LIGHT	Boulder	08/25/2014	Longmont Meadow View	53	0	32	0	0	85
LM-40	LIGHT	Boulder	06/02/2014	Liberty Court	19	0	0	0	0	19
LM-40	LIGHT	Boulder	06/16/2014	Liberty Court	8	0	0	0	0	8
LM-40	LIGHT	Boulder	06/23/2014	Liberty Court	3	0	1	1	0	5
LM-40	LIGHT	Boulder	06/30/2014	Liberty Court	13	0	12	2	0	27
LM-40	LIGHT	Boulder	07/07/2014	Liberty Court	24	0	13	0	0	37
LM-40	LIGHT	Boulder	07/14/2014	Liberty Court	17	0	50	0	0	67
LM-40	LIGHT	Boulder	07/21/2014	Liberty Court	17	0	39	1	0	57
LM-40	LIGHT	Boulder	07/28/2014	Liberty Court	8	0	65	0	0	73
LM-40	LIGHT	Boulder	08/04/2014	Liberty Court	13	0	25	0	0	38
LM-40	LIGHT	Boulder	08/11/2014	Liberty Court	7	0	75	0	0	82
LM-40	LIGHT	Boulder	08/18/2014	Liberty Court	2	0	17	1	0	20
LM-40	LIGHT	Boulder	08/25/2014	Liberty Court	8	0	6	0	0	14
LM-41	LIGHT	Boulder	06/02/2014	Stoney Ridge/Alpine Elem	45	0	1	0	0	46
LM-41	LIGHT	Boulder	06/16/2014	Stoney Ridge/Alpine Elem	6	0	1	1	0	8
LM-41	LIGHT	Boulder	06/23/2014	Stoney Ridge/Alpine Elem	5	0	6	0	0	11
LM-41	LIGHT	Boulder	06/30/2014	Stoney Ridge/Alpine Elem	19	0	45	1	0	65
LM-41	LIGHT	Boulder	07/07/2014	Stoney Ridge/Alpine Elem	12	0	45	0	0	57
LM-41	LIGHT	Boulder	07/14/2014	Stoney Ridge/Alpine Elem	12	0	41	0	0	53
LM-41	LIGHT	Boulder	07/21/2014	Stoney Ridge/Alpine Elem	20	0	188	6	0	214
LM-41	LIGHT	Boulder	07/28/2014	Stoney Ridge/Alpine Elem	6	0	83	0	0	89



Adult Trap Data - Genus Summary

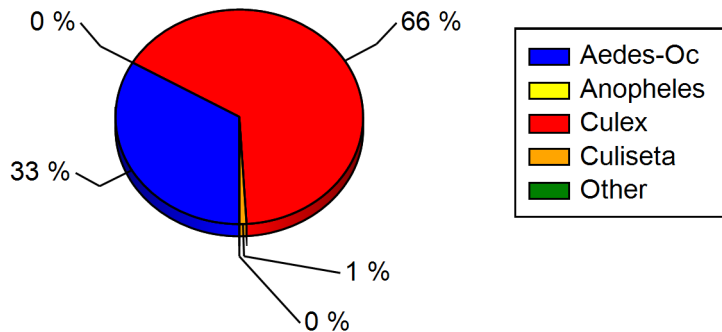
Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LM-41	LIGHT	Boulder	08/04/2014	Stoney Ridge/Alpine Elem	12	0	133	1	0	146
LM-41	LIGHT	Boulder	08/11/2014	Stoney Ridge/Alpine Elem	14	0	42	0	0	56
LM-41	LIGHT	Boulder	08/18/2014	Stoney Ridge/Alpine Elem	3	0	14	0	0	17
LM-41	LIGHT	Boulder	08/25/2014	Stoney Ridge/Alpine Elem	4	0	16	0	0	20
LM-42	LIGHT	Boulder	06/02/2014	Izaak Walton Park	38	0	2	0	0	40
LM-42	LIGHT	Boulder	06/16/2014	Izaak Walton Park	37	0	40	0	0	77
LM-42	LIGHT	Boulder	06/23/2014	Izaak Walton Park	14	0	129	6	0	149
LM-42	LIGHT	Boulder	06/30/2014	Izaak Walton Park	24	0	52	5	0	81
LM-42	LIGHT	Boulder	07/07/2014	Izaak Walton Park	36	0	88	5	0	129
LM-42	LIGHT	Boulder	07/14/2014	Izaak Walton Park	21	0	40	1	0	62
LM-42	LIGHT	Boulder	07/21/2014	Izaak Walton Park	31	0	114	0	0	145
LM-42	LIGHT	Boulder	07/28/2014	Izaak Walton Park	7	0	43	0	0	50
LM-42	LIGHT	Boulder	08/04/2014	Izaak Walton Park	2	0	71	0	0	73
LM-42	LIGHT	Boulder	08/11/2014	Izaak Walton Park	12	0	49	0	0	61
LM-42	LIGHT	Boulder	08/18/2014	Izaak Walton Park	14	0	21	0	0	35
LM-42	LIGHT	Boulder	08/25/2014	Izaak Walton Park	6	0	28	0	0	34
LM-43	LIGHT	Boulder	06/02/2014	Rough & Ready South	144	0	3	1	0	148
LM-43	LIGHT	Boulder	06/16/2014	Rough & Ready South	8	0	4	1	0	13
LM-43	LIGHT	Boulder	06/23/2014	Rough & Ready South	12	0	3	0	0	15
LM-43	LIGHT	Boulder	06/30/2014	Rough & Ready South	16	0	34	1	0	51
LM-43	LIGHT	Boulder	07/07/2014	Rough & Ready South	91	0	71	3	0	165
LM-43	LIGHT	Boulder	07/14/2014	Rough & Ready South	44	0	128	0	0	172
LM-43	LIGHT	Boulder	07/21/2014	Rough & Ready South	46	0	231	3	0	280
LM-43	LIGHT	Boulder	07/28/2014	Rough & Ready South	6	0	116	0	0	122
LM-43	LIGHT	Boulder	08/04/2014	Rough & Ready South	16	0	125	0	0	141
LM-43	LIGHT	Boulder	08/11/2014	Rough & Ready South	16	0	83	0	0	99
LM-43	LIGHT	Boulder	08/18/2014	Rough & Ready South	12	0	36	1	0	49
LM-43	LIGHT	Boulder	08/25/2014	Rough & Ready South	13	0	66	1	0	80
LM-44	LIGHT	Boulder	06/02/2014	Reserve at Somerset Mea	36	0	0	0	0	36
LM-44	LIGHT	Boulder	06/16/2014	Reserve at Somerset Mea	3	0	0	0	0	3
LM-44	LIGHT	Boulder	06/23/2014	Reserve at Somerset Mea	1	0	3	0	0	4
LM-44	LIGHT	Boulder	06/30/2014	Reserve at Somerset Mea	4	0	36	0	0	40
LM-44	LIGHT	Boulder	07/07/2014	Reserve at Somerset Mea	16	0	30	0	1	47
LM-44	LIGHT	Boulder	07/14/2014	Reserve at Somerset Mea	7	0	20	0	0	27
LM-44	LIGHT	Boulder	07/21/2014	Reserve at Somerset Mea	1	0	0	0	0	1
LM-44	LIGHT	Boulder	07/28/2014	Reserve at Somerset Mea	17	0	15	0	0	32
LM-44	LIGHT	Boulder	08/04/2014	Reserve at Somerset Mea	20	0	33	1	0	54
LM-44	LIGHT	Boulder	08/11/2014	Reserve at Somerset Mea	77	0	36	0	0	113
LM-44	LIGHT	Boulder	08/18/2014	Reserve at Somerset Mea	54	0	35	0	0	89
LM-44	LIGHT	Boulder	08/25/2014	Reserve at Somerset Mea	44	0	4	0	0	48



Colorado Mosquito Control, Inc.

Adult Trap Data - Genus Summary

Trap #	Type	County	Date		Ae/Oc	An	Cx	Cs	Other	TOTAL
LM-45	LIGHT	Boulder	07/14/2014	Southmoor Park	0	0	32	1	0	33
					6,683	13,117		1		
						0	184			19,985



TOTAL	%
6,683	33 %
0	0 %
13,117	66 %
184	1 %
1	0 %



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
S316483		Boulder					
	06/13/2014	LM-03	4	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/13/2014	LM-06	5	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/13/2014	LM-28	5	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/13/2014	LM-31	2	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							16
S316485		Boulder					
	06/16/2014	LM-03	4	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/16/2014	LM-06	7	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/16/2014	LM-10	1	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/16/2014	LM-31	11	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							23
S316486		Boulder					
	06/16/2014	LM-06	2	Culex salinarius	LIGHT	BCZ2	POSITIVE
	06/16/2014	LM-28	2	Culex salinarius	LIGHT	BCZ2	POSITIVE
Total in pool							4
S316504		Boulder					
	06/23/2014	LM-06	38	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							38
S316505		Boulder					
	06/23/2014	LM-03	10	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/23/2014	LM-10	1	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/23/2014	LM-28	14	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/23/2014	LM-31	9	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							34
S316506		Boulder					
	06/23/2014	LM-06	2	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	06/23/2014	LM-06	6	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	06/23/2014	LM-10	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
Total in pool							9
S316524		Boulder					
	06/30/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316525		Boulder					
	06/30/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316526		Boulder					
	06/30/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316527		Boulder					
	06/30/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
Total in pool							65
S316528		Boulder					
	06/30/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316529		Boulder					
	06/30/2014	LM-03	28	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/30/2014	LM-28	33	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							61
S316530		Boulder					
	06/30/2014	LM-31	60	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							60
S316531		Boulder					
	06/30/2014	LM-31	59	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							59
S316532		Boulder					
	06/30/2014	LM-06	45	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	06/30/2014	LM-10	6	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							51
S316533		Boulder					
	06/30/2014	LM-03	2	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	06/30/2014	LM-06	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
Total in pool							3
S316569		Boulder					
	07/07/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							65
S316570		Boulder					
	07/07/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316571		Boulder					
	07/07/2014	LM-06	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316572		Boulder					
	07/07/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							65
S316573		Boulder					
	07/07/2014	LM-31	65	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							65
S316574		Boulder					
	07/07/2014	LM-03	21	Culex tarsalis	LIGHT	BCZ2	NEGATIVE



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
	07/07/2014	LM-28	14	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							35
S316575		Boulder					
	07/07/2014	LM-06	6	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	07/07/2014	LM-10	8	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	07/07/2014	LM-31	29	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							43
S316576		Boulder					
	07/07/2014	LM-06	2	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/07/2014	LM-10	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/07/2014	LM-28	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/07/2014	LM-28	3	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/07/2014	LM-31	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
Total in pool							8
S316605		Boulder					
	07/14/2014	LM-28	64	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							64
S316606		Boulder					
	07/14/2014	LM-06	46	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							46
S316607		Boulder					
	07/14/2014	LM-31	43	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							43
S316608		Boulder					
	07/14/2014	LM-03	28	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-10	32	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							60
S316609		Boulder					
	07/14/2014	LM-03	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-06	12	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-06	6	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-10	8	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-28	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-28	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-31	3	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/14/2014	LM-31	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
Total in pool							33
S316650		Boulder					
	07/21/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
S316651		Boulder					
	07/21/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316652		Boulder					
	07/21/2014	LM-03	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316653		Boulder					
	07/21/2014	LM-06	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316654		Boulder					
	07/21/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316655		Boulder					
	07/21/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316656		Boulder					
	07/21/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316657		Boulder					
	07/21/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316658		Boulder					
	07/21/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316659		Boulder					
	07/21/2014	LM-31	64	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							64
S316660		Boulder					
	07/21/2014	LM-31	64	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							64
S316661		Boulder					
	07/21/2014	LM-31	63	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							63
S316662		Boulder					
	07/21/2014	LM-03	25	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-28	42	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							67
S316663		Boulder					
	07/21/2014	LM-06	44	Culex tarsalis	LIGHT	BCZ2	NEGATIVE



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
	07/21/2014	LM-10	18	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							62
S316664		Boulder					
	07/21/2014	LM-03	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-03	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-06	4	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-06	2	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-10	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-28	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-28	8	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	07/21/2014	LM-31	5	Culex pipiens	LIGHT	BCZ2	NEGATIVE
Total in pool							23
S316734		Boulder					
	07/28/2014	LM-03	49	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							49
S316735		Boulder					
	07/28/2014	LM-28	62	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							62
S316736		Boulder					
	07/28/2014	LM-28	62	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							62
S316737		Boulder					
	07/28/2014	LM-31	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316738		Boulder					
	07/28/2014	LM-31	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S316739		Boulder					
	07/28/2014	LM-10	12	Culex tarsalis	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-31	45	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							57
S316740		Boulder					
	07/28/2014	LM-06	45	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	07/28/2014	LM-10	12	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							57
S316741		Boulder					
	07/28/2014	LM-03	2	Culex pipiens	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-06	5	Culex pipiens	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-06	1	Culex salinarius	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-10	3	Culex pipiens	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-10	1	Culex salinarius	LIGHT	BCZ2	POSITIVE



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
	07/28/2014	LM-28	7	Culex salinarius	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-31	4	Culex pipiens	LIGHT	BCZ2	POSITIVE
	07/28/2014	LM-31	3	Culex salinarius	LIGHT	BCZ2	POSITIVE
Total in pool							26
S317649		Boulder					
	08/04/2014	LM-03	56	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							56
S317650		Boulder					
	08/04/2014	LM-03	56	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							56
S317651		Boulder					
	08/04/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S317652		Boulder					
	08/04/2014	LM-28	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S317653		Boulder					
	08/04/2014	LM-31	65	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S317654		Boulder					
	08/04/2014	LM-10	20	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-28	44	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							64
S317655		Boulder					
	08/04/2014	LM-06	49	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-31	13	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							62
S317656		Boulder					
	08/04/2014	LM-03	2	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-03	4	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-06	7	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-06	5	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-10	3	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-28	4	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-28	8	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	08/04/2014	LM-31	2	Culex pipiens	LIGHT	BCZ2	NEGATIVE
Total in pool							35
S317700		Boulder					
	08/11/2014	LM-06	45	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							45



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
S317701		Boulder					
	08/11/2014	LM-28	46	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							46
S317702		Boulder					
	08/11/2014	LM-03	17	Culex tarsalis	LIGHT	BCZ2	POSITIVE
	08/11/2014	LM-10	15	Culex tarsalis	LIGHT	BCZ2	POSITIVE
	08/11/2014	LM-31	15	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							47
S317703		Boulder					
	08/11/2014	LM-06	4	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/11/2014	LM-06	5	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	08/11/2014	LM-10	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/11/2014	LM-28	4	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/11/2014	LM-31	3	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/11/2014	LM-31	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
Total in pool							18
S317738		Boulder					
	08/18/2014	LM-03	25	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-28	40	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							65
S317739		Boulder					
	08/18/2014	LM-06	31	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-10	17	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-31	16	Culex tarsalis	LIGHT	BCZ2	NEGATIVE
Total in pool							64
S317740		Boulder					
	08/18/2014	LM-06	4	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-06	7	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-10	2	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-10	1	Culex salinarius	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-28	1	Culex pipiens	LIGHT	BCZ2	NEGATIVE
	08/18/2014	LM-28	11	Culex salinarius	LIGHT	BCZ2	NEGATIVE
Total in pool							26
S317777		Boulder					
	08/25/2014	LM-03	52	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							52
S317778		Boulder					
	08/25/2014	LM-03	21	Culex tarsalis	LIGHT	BCZ2	POSITIVE
	08/25/2014	LM-10	2	Culex tarsalis	LIGHT	BCZ2	POSITIVE
	08/25/2014	LM-28	14	Culex tarsalis	LIGHT	BCZ2	POSITIVE



Colorado Mosquito Control, Inc.

Mosquito Pool Testing

Sample	Collection	Trap	Quantity	Species	Type	Notes	Results
	08/25/2014	LM-31	15	Culex tarsalis	LIGHT	BCZ2	POSITIVE
Total in pool							52
S317779		Boulder					
	08/25/2014	LM-03	5	Culex pipiens	LIGHT	BCZ2	POSITIVE
	08/25/2014	LM-03	8	Culex salinarius	LIGHT	BCZ2	POSITIVE
	08/25/2014	LM-28	3	Culex salinarius	LIGHT	BCZ2	POSITIVE
	08/25/2014	LM-31	1	Culex salinarius	LIGHT	BCZ2	POSITIVE
Total in pool							17



Customer	Subdiv/Area	Material	Start Time	End Time	Miles
Longmont, City of					
Backpack Barrier					
07/11/2014	JIM HAMM NATURE AREA	Talstar	08:30:00	09:10:00	0.4
07/11/2014	LM-34	Talstar	10:30:00	10:40:00	0.2
07/24/2014	LM-42	Talstar	14:30:00	14:56:00	0.2
07/24/2014	LM-41	Talstar	15:30:00	15:40:00	0.2
07/24/2014	LM-34	Talstar	15:00:00	15:20:00	0.4
07/25/2014	JIM HAMM NATURE AREA	Talstar	12:40:00	13:10:00	0.4
Backpack Barrier				Sum	1.8
				Avg	0.3
				Min	0.2
				Max	0.4
Truck ULV					
06/18/2014	LM-27	AquaLuer 20-20	08:25:00	08:48:00	3.2
06/26/2014	LM-27	AquaLuer 20-20	20:55:00	21:14:00	4.1
06/26/2014	LM-42	AquaLuer 20-20	21:30:00	21:50:00	3.1
07/03/2014	LM-03	AquaLuer 20-20	23:30:00	23:43:00	3.2
07/03/2014	LM-31	AquaLuer 20-20	21:20:00	22:00:00	9.0
07/03/2014	LM-34	AquaLuer 20-20	22:10:00	22:34:00	4.9
07/03/2014	LM-28	AquaLuer 20-20	22:41:00	22:56:00	3.1
07/03/2014	LM-27	AquaLuer 20-20	20:45:00	21:08:00	3.7
07/03/2014	LM-22	AquaLuer 20-20	23:11:00	23:23:00	2.3
07/10/2014	LM-43	AquaLuer 20-20	12:00:00	12:00:00	0.0
07/10/2014	LM-42	AquaLuer 20-20	22:30:00	22:50:00	3.0
07/10/2014	LM-34	AquaLuer 20-20	12:00:00	12:00:00	0.0
07/10/2014	LM-31	AquaLuer 20-20	21:59:00	22:26:00	3.1
07/10/2014	LM-28	AquaLuer 20-20	00:00:00	00:00:00	0.0
07/10/2014	LM-27	AquaLuer 20-20	00:00:00	00:00:00	0.0
07/10/2014	LM-23	AquaLuer 20-20	00:00:00	00:00:00	0.0
07/10/2014	LM-22	AquaLuer 20-20	12:00:00	12:00:00	0.0
07/10/2014	LM-18	AquaLuer 20-20	21:03:00	21:51:00	8.0
07/10/2014	LM-03	AquaLuer 20-20	00:00:00	00:00:00	0.0
07/11/2014	LM-43	AquaLuer 20-20	22:18:00	22:58:00	8.5
07/11/2014	LM-34	AquaLuer 20-20	23:10:00	23:30:00	4.7
07/11/2014	LM-31	AquaLuer 20-20	20:57:00	21:32:00	7.2
07/11/2014	LM-28	AquaLuer 20-20	23:40:00	23:48:00	1.4
07/11/2014	LM-27	AquaLuer 20-20	20:26:00	20:42:00	3.1
07/11/2014	LM-23	AquaLuer 20-20	00:20:00	00:25:00	0.5
07/11/2014	LM-22	AquaLuer 20-20	23:54:00	00:13:00	3.5
07/11/2014	LM-03	AquaLuer 20-20	21:44:00	22:12:00	4.9
07/17/2014	LM-43	AquaLuer 20-20	22:28:00	23:29:00	7.5
07/17/2014	LM-27	AquaLuer 20-20	23:39:00	00:00:00	3.0



Adulticide Data

Customer	Subdiv/Area	Material	Start Time	End Time	Miles
	07/17/2014 LM-23	AquaLuer 20-20	00:06:00	00:21:00	2.4
	07/18/2014 LM-22	AquaLuer 20-20	00:27:00	00:55:00	2.3
	07/24/2014 LM-43	AquaLuer 20-20	23:33:00	00:20:00	11.9
	07/24/2014 LM-42	AquaLuer 20-20	22:05:00	22:27:00	2.0
	07/24/2014 LM-41	AquaLuer 20-20	23:00:00	23:26:00	6.2
	07/24/2014 LM-34	AquaLuer 20-20	22:05:00	22:34:00	5.6
	07/24/2014 LM-31	AquaLuer 20-20	20:57:00	21:58:00	8.6
	07/24/2014 LM-27	AquaLuer 20-20	20:34:00	20:55:00	3.0
	07/24/2014 LM-18	AquaLuer 20-20	22:38:00	23:06:00	6.0
	07/24/2014 LM-17	AquaLuer 20-20	23:25:00	23:45:00	4.0
	07/24/2014 LM-03	AquaLuer 20-20	21:07:00	21:45:00	5.0
	07/25/2014 LM-28	AquaLuer 20-20	00:41:00	00:53:00	1.8
	07/25/2014 LM-23	AquaLuer 20-20	00:25:00	00:36:00	2.4
	07/25/2014 LM-22	AquaLuer 20-20	01:00:00	01:14:00	1.3
	07/31/2014 LM-43	AquaLuer 20-20	22:02:00	22:55:00	12.9
	07/31/2014 LM-31	AquaLuer 20-20	21:00:00	21:50:00	11.0
	07/31/2014 LM-28	AquaLuer 20-20	23:02:00	23:10:00	1.4
	07/31/2014 LM-27	AquaLuer 20-20	23:14:00	23:28:00	3.0
	07/31/2014 LM-23	AquaLuer 20-20	23:51:00	00:03:00	2.4
	07/31/2014 LM-22	AquaLuer 20-20	23:29:00	23:43:00	3.6
	08/07/2014 LM-43	AquaLuer 20-20	22:52:00	23:38:00	10.0
	08/07/2014 LM-41	AquaLuer 20-20	21:05:00	21:37:00	6.7
	08/07/2014 LM-28	AquaLuer 20-20	23:04:00	23:12:00	1.1
	08/07/2014 LM-27	AquaLuer 20-20	20:38:00	20:54:00	2.6
	08/07/2014 LM-23	AquaLuer 20-20	22:37:00	22:57:00	5.2
	08/07/2014 LM-22	AquaLuer 20-20	23:18:00	23:28:00	2.6
	08/07/2014 LM-09	AquaLuer 20-20	21:48:00	22:02:00	2.9
	08/07/2014 LM-03	AquaLuer 20-20	22:14:00	22:33:00	4.1
	08/14/2014 LM-44	AquaLuer 20-20	21:48:00	22:18:00	6.2
	08/14/2014 LM-31	AquaLuer 20-20	20:45:00	21:38:00	11.0
	08/14/2014 LM-28	AquaLuer 20-20	22:35:00	22:39:00	1.2
	08/14/2014 LM-27	AquaLuer 20-20	22:40:00	22:49:00	2.0
	08/14/2014 LM-23	AquaLuer 20-20	23:10:00	23:34:00	4.0
	08/14/2014 LM-22	AquaLuer 20-20	22:54:00	23:03:00	2.9
	08/21/2014 LM-31	AquaLuer 20-20	20:27:00	21:07:00	8.8
	08/21/2014 LM-27	AquaLuer 20-20	21:16:00	21:28:00	2.7
	08/21/2014 LM-22	AquaLuer 20-20	21:30:00	21:45:00	1.8
	08/28/2014 LM-03	AquaLuer 20-20	21:07:00	21:22:00	3.8
Truck ULV					Sum 271.4
					Avg 4.1
					Min 0.0
					Max 12.9